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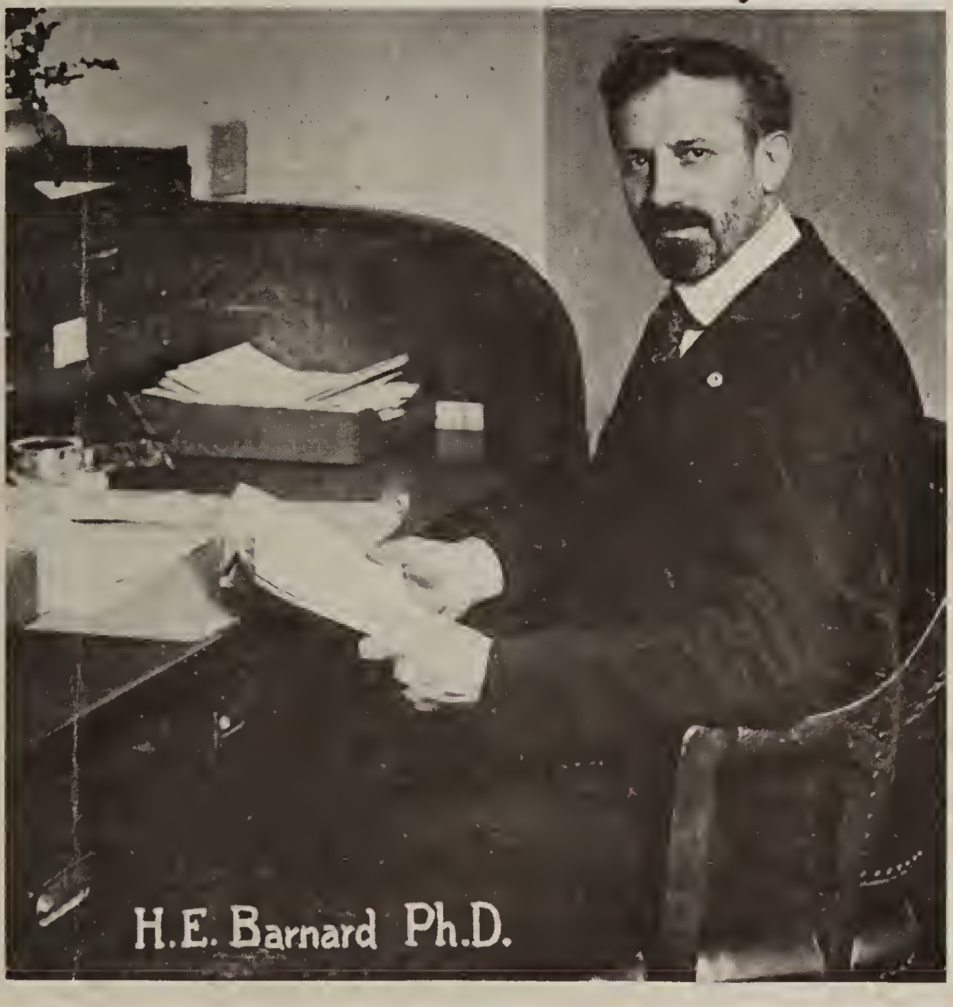
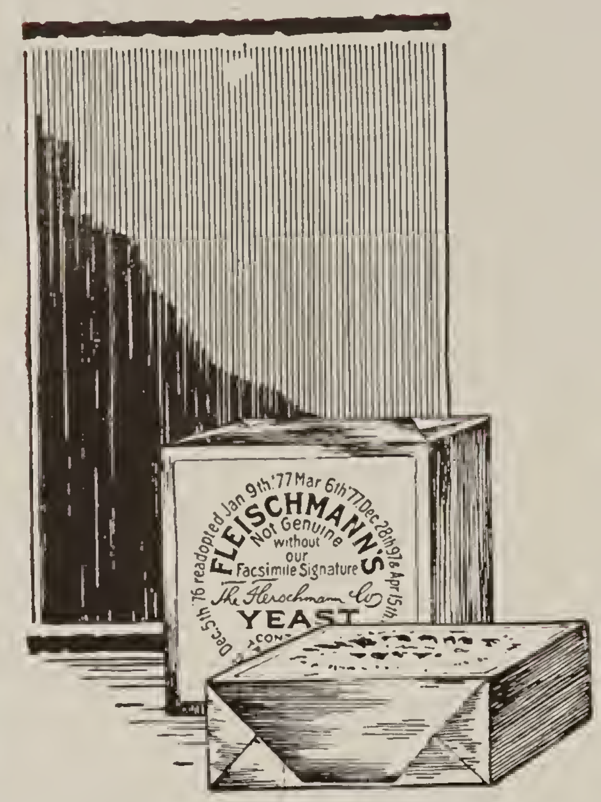
# THE AMERICAN FOOD JOURNAL


H.E. Barnard Ph.D.

January, 1919

## The Tin Foil Cakes of Fleischmann's Yeast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|---|---|
| In Quaker Oats | $0.32 |
| In Round Steak | 2.56 |
| In Leg of Lamb | 3.00 |
| In Veal Cutlets | 3.56 |
| In Halibut | 3.31 |
| In Salt Codfish | 4.87 |
| In Canned Peas | 3.37 |
| In Milk | 1.22 |

So meats and fish average fully as much as Quaker Oats would cost you at $3.20 per large package.

And more, for the oat is better food. It is better balanced, more complete. It is almost the ideal food.

The best way possible to bring down food cost is to serve more Quaker Oats.

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*Except in the far West and South*

(2054)

THE AMERICAN FOOD JOURNAL

C. A. Patterson
Publisher
H. E. Barnard, Ph.D.
Editor
Wm. G. Davies
News Editor
Cunard Bldg., Chicago

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## Some Do, Some Don't

As we expected, modernizing the magazine which we started to do last month brought in a bunch of bouquets and brick bats.

One subscriber's note was a whole page about his natural abhorrence to red, another said that two-column makeup was much easier to read than three, still another became obsessed with the idea that colored covers, illustrations, etc., put it in a class with yellow journalism.

These criticisms were more than balanced by a goodly number of sincere compliments from big corporation heads and recognized leaders in the food industry, so altogether we are convinced that modernizing the Food Journal has been a step toward progress. We heartily agree that a flaming red cover is not good as a regular diet, but we used red for December in order to make the greater contrast possible so that the entire field would know that the American Food Journal had been rejuvenated. The red cover of December will appear no more, as it has accomplished its purpose.

One criticism regarding a change to smaller type has been corrected this month, and from now on 10 point type, same as formerly, will be used.

Continuing with the idea that we shall endeavor to make this magazine from every standpoint command highest respect and recognition, we are pleased to announce that Dr. Harry E. Barnard has become its Editor.

Realizing that to have this magazine authoritative and of greatest possible value, we must have as its editorial head a man primarily an expert on food subjects, but in addition our requirements were that he must be a recognized writer.

Most of you know Dr. Barnard either personally or through his magazine contributions. With twenty years' experience in foods, a natural aptitude along literary lines, together with a wide acquaintance, we believe qualifies him for the Editorship of the American Food Journal. And when it is realized that so rarely under one mental roof do we find a combination of this kind, we feel indeed fortunate that for several years we will have Dr. Barnard as Editor.

Our selection of the Doctor as a guide to our editorial destinies was made after a thorough canvass of the field, our thought being to secure the strongest and best known man with literary ability.

Our sincere desire is to gain your confidence and to continue to merit and hold it. Our policy will always be fair, fearless and fetterless, unhampered and uncontaminated by commercial subsidy.

C. A. Patterson,
Publisher.

**The Spread for Bread**

**Mr. Dealer**

are you selling "Swift's Premium" Oleomargarine?

The rising cost of food has further increased the popularity of "Swift's Premium" Oleomargarine.

The housewife has discovered in it a pure, wholesome and nutritious product containing all the essential food elements and one that does not decrease the former standard of living.

"Swift's Premium" will build up for you a good, steady, profitable trade.

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# Dr. H. E. Barnard Accepts Editorial Responsibility

## Noted Food Expert Will Give the Readers of The American Food Journal the Benefit of His Twenty Years Experience

**WITH the acceptance of the position of editor of The American Food Journal Dr. Harry E. Barnard brings to the readers of this magazine twenty years of experience in food affairs —twenty years of unusual accomplishment in which his work as food chemist, promulgator of pure food laws, government official in the food and dairy department, writer and speaker on all phases of the food subject, has marked him as a man of unusual vision of the needs of the people of this country and of remarkable expertness in his field. Scientists and food control officials who have been associated with him in his work, food manufacturers and distributors who have been brought before him as violators of the law or who have come to him for interpretation of the law, and educators, dietists, lawyers and physicians who have closely followed his work—all agree that Dr. Barnard stands in the first rank of food experts and many pronounce him the foremost authority in his field of work.**

While the food officials connected with all departments of the Federal and various States Food and Dairy Departments, food chemists, dietists and food manufacturers know Dr. Barnard because of his prominence in all phases of the food work, a brief review of his career may surprise many of his acquaintances and co-workers who, while knowing him, knew him only in a limited way and never fully realized how broad his work has been in the food field.

As one who has known much of his work so aptly remarked recently: "He is a food official by profession, not by politics."

He began his work in New Hampshire, as chemist of the State Board of Health and one of his first battles was for legislation that would compel the labeling of drugs and patent medicines with their alcoholic and narcotic content. But he was ahead of the procession then as now, and even the Senate committee on public health, with its chairman a physician, thought it was asking too much of any patent medicine manufacturer to compel him to disclose the alcohol content of his formula and so advertise the real reason for its popularity. In those early days in pure food work the only control over the manufacturer was his own inherent honesty; the only remedy for fraud was publicity. And honesty was not the compelling force then it is now, and as for publicity—a newspaper that dared refer to adulterated food or sophisticated drugs promptly found its advertising more valuable than its new columns, accepted the bribe and kept quiet. And that was less than twenty years ago.

The movement against adulteration started in the East, but it soon spread West and Dr. Barnard went with it to become the first chemist to the State Board of Health of Indiana and two years later, when its food law was passed, the first food and drug commissioner. He is still the first chemist to the Board of Health and there is no prospect that there will soon be a second one, and as for pure food work the people of Indiana have so long been eating pure food, that they have almost forgotten the days when every grocery store was stocked with substitutes and every label was a libel.

The dragon of food fraud died easily. Two years of work with manufacturers, dealers, commercial clubs and women's organizations behind him, and a fearless, unsubsidized press, eager for news of the battle, finished the fight. But out of the desire to give the consumer pure food arose a larger and more vital problem—that of clean food. And so Indiana passed her sanitary food law that in the ten years since it was drafted by Dr. Barnard has been written on the statute books of three-fourths the states and into the health code of scores of cities.

Two years later the legislature, by this time accustomed to constructive legislation along pure food lines, passed a cold storage law, which like the sanitary law, was the first of its kind and served as a model for all succeeding attempts to regulate the cold storage of food. And to establish further a reputation for constructive statesmanship the legislature of 1911 passed a weights and measures law and made Dr. Barnard Indiana's first Commissioner of Weights and Measures.

Each legislature since then has given the Doctor more duties and greater powers, more adequate appropriations and a larger corps of inspectors. Nearly every food industry in the state is an organized co-worker with the Doctor's many departments. The Indiana canners, the bottlers, the grocers, the bakers, the creamery operators, are staunch supporters of the kind of food control Dr. Barnard administers for they know it means fair competition, high quality goods and better prices, satisfied customers and successful business.

Dr. Barnard's new campaign is constructive and educational and is undertaken because he sees the tremendous cost to the nation in bad health, unhappy homes and wasted money—of the lack of information about foods, its wide purchase, careful preparation and use.

If there are interesting facts about the food supply he will tell them; if there are notorious revelations of food fraud he may relate them, but if he does he will do so to deter and control the adulterators, not to scare and disgust the consumer. He knows our people have the best food and the most food of any country and all the time, so far as he can, he will help to make it even better and more plentiful and so direct its purchase and use that the high cost of food will be a less momentous, though no less vital, question than now.

# Canners in Convention Told of Great Tasks Ahead

## Speakers at the First Meeting Urge Drastic Action to Raise Standards of Canned Products and Take Steps to Capture Foreign Trade

The introduction of a system of inspection that will have for its purpose the raising of the standard of canned products.

The inauguration of a world-wide advertising campaign that will have for its purpose the education of the consuming public to the use of canned goods and to certify to the public the high standard of canned goods.

The consideration of ways and means to capture the world trade in canned goods and to educate foreign nations to the use of this product.

These were the three great problems that were raised for the consideration of the joint convention of the National Canners' Association, Canning Machinery and Supplies Association and The National Canned Foods and Dried Fruit Brokers Association. Held in the LaSalle Hotel, Chicago, January 20th to 24th inclusive.

The convention was the biggest ever held, due largely, the officials said, to the fact that conditions of trade are so abnormal and the year 1919 is expected to present entirely new problems than those ever before raised and the members of all branches of the canning industry were anxious to learn something about these conditions and how to meet them.

Without a doubt the clearest statement of just what problems will have to be faced by the men of this industry this year was presented by Judge J. Harry Covington, special counsel for the canners when he spoke at the opening session of the convention on Monday, the 20th.

Judge Covington reviewed conditions of high prices and high wages and predicted that a readjustment of both must come. He deprecated the tendency of the farmer to insist upon the revision of farm prices as the last move and said that if wages of labor are to be lowered the cost of farm products to the canner must first be lowered so that the canner may reduce the price to wholesalers and thus permit a lowering of prices to retailer and consumer. To go about it the other way, the judge said, would be to invite a convulsion of our economic system.

He then pointed out that canned goods are being used in this country in only a small fraction of the extent possible and as a remedy for this condition he urged that the standard of canned goods be raised by a strict system of inspection inaugurated by the canners themselves and that a world-wide advertising campaign be entered upon to acquaint the consumer with the high standard and food value of canned goods and to create a bigger market. In support of this he cited the work of the citrus growers who have educated the people to use their fruits in immense quantities by advertising. He pointed out that the constitution of the organization permitted the entry upon these two lines of work.

> A full report of the Twelfth Annual convention of the National Canners' Association will be given in the February issue of The American Food Journal. The convention was still in session as this issue goes to press.

The speaker also urged that the members of the canners' association ally themselves with various organizations that have for their purpose the building up of America's export trade. This, he argued, is a most important development of the business to which the canners should look forward to and work for.

All of the sections on Tuesday or Wednesday indorsed the movement for strict inspection and the raising of the standard of canned goods and went on record in favor of expansion to foreign markets.

In all of the sections the labor situation was given a great deal of attention—in fact this seemed to be the problem that was uppermost in the minds of most of the delegates present. John R. Baines and W. L. Amoss, the latter from the United States Department of Labor and Charles H. Bentley, sales manager of the California Packing Corporation, all emphasized the fact that there will be a shortage of labor in the canning industry this year as many of the women who could formerly be depended upon for work in the factories are now working elsewhere or have given up factory work entirely. Mr. Amoss believed that some of this shortage could be made up if the canners would improve the working conditions in the factories. He said that the conditions in the canning factories had been allowed to remain below the standard of conditions in most other factories because foreigners who had but recently come to this country and who would put up with poor working conditions had generally been employed. This condition is changed now, he said, because new immigrants are not arriving and the old ones have been educated to a higher standard of working conditions.

Senator Fernald, in speaking before the assembly on Monday night urged that business men take a more prominent part in the politics of the country so as to see to it that laws relating to business and the business affairs of the country should be more carefully and economically taken care of.

President Henry Burden of the National Canners' Association, in giving the president's annual address said in part:

### *Accurate Knowledge of Costs*

"The Committee on Standard Classification of Accounts has placed within reach of every canner the means of acquiring a full knowledge of the cost of his product. Such information cannot be had without effort, but energy expended in gaining it will be many fold repaid. The keeping of complete

(Continued on page 36)

# FISHING INDUSTRY HAS BIG NEW PROBLEM

## The Men at the Head of the Industry, Legislators, Government Officials, Railroad Executives and the Public All Share the Trouble and Must Help Solve the Problem.

*By Wm. G. Davies*

America is learning to eat fish.

In that simple statement is involved a problem of many angles which to be properly solved must receive the intelligent, concentrated thought and close co-operation of the men at the head of the fishing industry, government officials connected with the bureau of fisheries, transportation officials, legislators at Washington and in the various state capitals, dietists and chemists.

To the layman the problem is not so very complex. Somebody started something and whoever it was had better finish it.

The layman, during the last eighteen months, was taught to eat fish in greater quantities than ever before and he likes it and will keep right on eating it. But in the process of education he was taught that fish was an alternative food for red meat: that its food value was as great as that of red meat and—most important of all—that it was cheaper than red meat and more plentiful. He knows that when he heeded the government's plea and started to eat fish in greater quantities that the price of fish began to soar and mutterings were heard about "fish trusts"; "excessive profits" and what not, mostly because he did not understand what was being done or how and there was no one to tackle the job of enlightening him.

### A Trying Problem

To the man engaged in the fish industry the problem is a trying one and, as it has loomed up in the last year, is not only bigger, but different and more complex than any that his previous experience has taught him to deal with. He must supply more fish, fresh, frozen and canned than he has ever supplied before; he must ship fish to markets far removed from the larger sources of supply; he must open up new fields of production and protect the old from exhaustion and in this he will need the help of wise legislators and the close co-operation of other government officials, and last, but not least, he must direct his most skillful efforts towards educating the consumer to want other than the few kinds of fish which the consumer, in his ignorance, has always demanded and is still demanding.

Drying Salt Cod, Flake Yard, Gloucester, Mass.

The Bureau of Chemistry and Bureau of Fisheries already have started and have made great progress towards the solution of the last angle of the problem in their work of discovering "new" food fish and publishing the statements of their food values and flavors; locating the sources of supply of these "new" fish and in devising new and appetising ways of serving them. The work of these branches of the government forms one of the most notable chapters in the history of the food production and conservation of the United States and is worthy of a more detailed description than can be given here.

In 1907 when the Food and Drug Acts went into effect the Bureau of

Chemistry, in line with other work, began an investigation to determine who was responsible for the shipments of fish and oysters of inferior quality, or improperly packed, to the markets. They first interpreted their duties as purely police or regulatory but after a comparatively brief period of close contact with the men in the fishing industry they began to realize that the oystermen, fish packers and distributors were not deliberately trying to fool the public, and, incidentally, injure their own business, but that they lacked the scientific knowledge of how to avoid the wrong practices. Thereupon the Bureau, without relaxing its police duties, gradually introduced an educative element in its work and today, as a result of this development, the Bureau of Chemistry and the Bureau of Fisheries are the strongest educational forces in the country in teaching fishermen how to fish, packers how to pack and shippers how to ship. And it goes farther than this. The Bureaus are today the greatest advertising agency for fish and sea foods in the country, issuing bulletin after bulletin on what fish to eat and how to prepare them.

### Government Work Effective

It is freely conceded by fishmen that the success of the government's campaign to substitute fish and sea foods for the better known red meats on the tables of the American families during the war was due almost entirely to the previous educative work of the Bureau. In fact, so well had the public's mind been prepared for the change of eating habit necessitated by the food stringency during the war that the industry was swamped with orders beyond its ability to fill.

The year of 1918 was a difficult year for the industry that was trying to live up to all the demands of the government. It was called upon for men and it gave them freely to the service. It was called upon for the equipment, and the materials of which equipment is made was requisitioned, but it did not protest. And finally it was called upon to help create as well as supply a bigger demand for the product when the wise ones believed that the demand already far exceeded the supply possible under the circumstances. And then, as though the God of the Hohenzollern's had gained the upper hand and had determined to penalize the fish men, the catch of many of the most desirable species of fish came in way below normal. The catch of halibut alone, for which there has been a big normal demand, fell off about thirty-five per cent just at the time when the cry for it was becoming the loudest.

But it is only paying tribute where tribute is deserved, to say that through this entire period of stress and strain the record of the men in all branches of this industry is one of which the whole nation should be proud.

As an example of the way in which the fish industry wholeheartedly co-operated with the government in helping to solve the war problems one has only to turn to the record of New York. When Herbert Hoover, complying with a most urgent demand, went to that state to help correct serious food distribution troubles he found that the wholesale fish dealers of New York had already appointed a committee of six to work with the food administration of that state. This committee, composed of the most prominent dealers in New York, devoted a great deal of its time to furnishing the Food Administration and the Federal Food Board with accurate records of the amount of fish on hand, the amount expected, prices and market conditions, and carefully gotten up estimates of based on weather and other conditions, of just what could be depended upon in the fish situation of the near future. In this way they kept the food officials in the closest possible touch with the conditions.

At one period last winter when the supply of frozen fish was far shorter than it should have been and the government's demands for more fish for the soldiers in France and in the training camps looked as though it might go unfilled, to help the situation the wholesale fish dealers of New York guaranteed to the commissioner about three-quarters of a million pounds of frozen whiting and ling to be furnished to retail dealers at four cents a pound so that the poor of the city could be furnished with a low-priced fish during the winter and the Lenten season when the demand for fish is greater than at other seasons. And they lived up to the guarantee.

It was about this time that the gospel which the officials of the Bureau of Chemistry had been so diligently preaching for years—the gospel that fishermen should market and the public should eat many of the kinds of fish which had formerly been

## Digestibility of Fish

In the study of the digestibility of the protein and fat supplied by some common varieties, fish in the form of "fish loaf" was served as the major part of a simple mixed diet, which also included potatoes, crackers, fruit, sugar, and tea or coffee. The principal results are summarized in the following table:

SUMMARY OF RESULTS OF ALL DIGESTION EXPERIMENTS

| Number of experiments | Kinds of fish | Average amount of fish eaten per man per day | Digestibility of fish protein | Digestibility of fish fat |
|---|---|---|---|---|
| | | Grams | Per cent. | Per cent. |
| 3. | Mackerel ............ | 448 | 93.1 | 95.2 |
| 3. | Butterfish ........... | 471 | 91.9 | 86.4 |
| 8. | Grayfish ............ | 440 | 92.8 | 94.3 |
| 4. | Salmon ............. | 355 | 93.2 | 93.7 |

On an average, the subjects ate 448 grams of Boston mackerel, 471 grams of butterfish, 440 grams of grayfish, and 355 grams of salmon daily, which would indicate that in every case the fish was eaten with relish.

Digging Clams for Dinner on the Western Coast

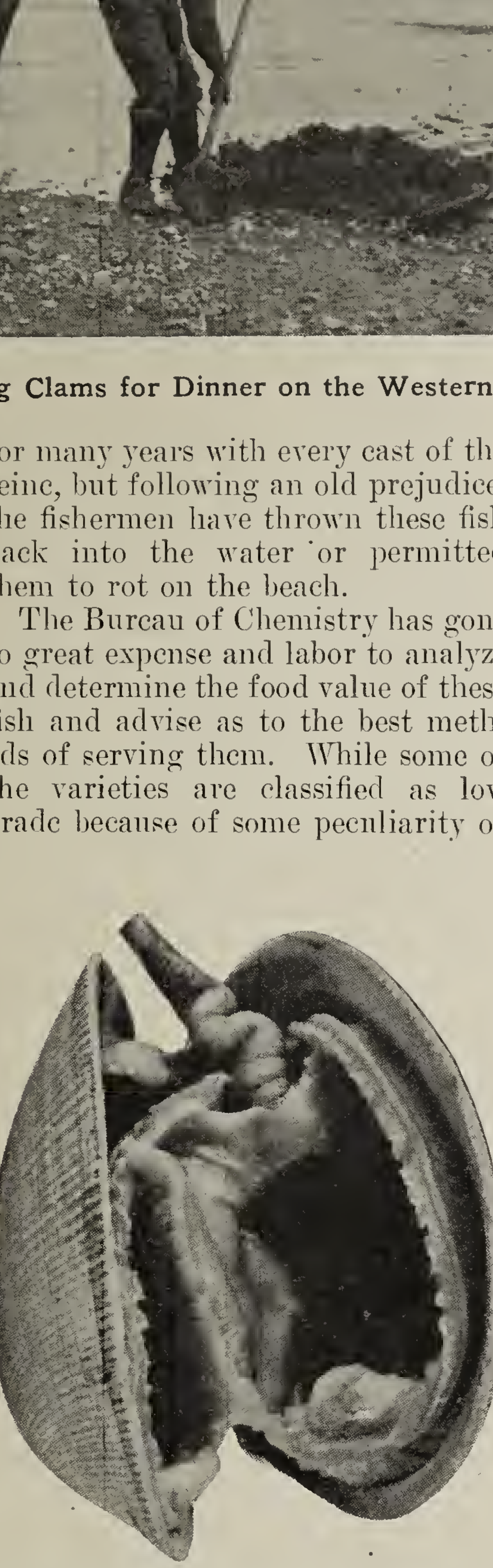
ignored as food—began to show converts. The word was passed down both coasts of the country and to the lake and river piscatorial trades to market everything taken in the nets or on the hooks—and this they did. Soon there began to appear in the fish stalls where the public went to buy fish many species which had never before been offered for sale in quantities and some that had never been recommended by fish men for eating purposes. Such fish as blowfish, searobin, bellowsfish, skate, congereels, drums, grouper, shark and greyfish found their way to the tables of the people and were eaten with absolute disregard of precedent and the doubtful attitude of old fishermen who had been long trained to look upon these varieties as being beneath notice as food.

During this period of what might have seemed indiscriminate fish marketing the public was protected by the scientific knowledge of the officials of the Bureau of Fisheries and of the Bureau of Chemistry, who had long before investigated and classified these and many others of the fin tribe according to food values.

That the eating of many varieties, some of them formerly considered non-edible — instead of a few kinds of fish helped the food situation last year is a truth that food economists and the members of the fishing industry will vouch for. Although the war is over the food shortage still exists and will continue for at least two years and there is still a most urgent reason in this fact why the American consumer should continue to be supplied with "new" kinds of fish and why the educative work of teaching them to eat the "new" kinds of fish should be continued or increased.

We have quoted the word "new" because in reality the so-called "new" fish are fish that have been caught for many years with every cast of the seine, but following an old prejudice, the fishermen have thrown these fish back into the water or permitted them to rot on the beach.

The Bureau of Chemistry has gone to great expense and labor to analyze and determine the food value of these fish and advise as to the best methods of serving them. While some of the varieties are classified as low grade because of some peculiarity of the flesh or flavor that makes them undesirable when served in the fresh state and which interferes with the practicability of canning or packing for shipment, others are pronounced to be as good, both as to food value and flavor as many of the best varieties long used. Some fish are not so good when eaten fresh, but make very tasty morsels when smoked or canned.



A Husky Clam With the Door of His House Open

Bulletins have gone forth from the government offices telling about these fish, giving the results of the analysis of the flesh and telling how best to serve them to make them a valuable additional food for the table. Space will not permit of a description of all of these fish, but just a few examples gives one an inkling of the enormous food supply in our seas and inland lakes and rivers that has been wasted or ignored and which, if this nation is to be the food conservator that it is hoped for, will have to be utilized.

The bowfin is said to be one of the oldest of modern fishes and it has a history that goes back about two million years. It is scrappy by nature and destroys other members of the fin tribes. With its sharp teeth it will cut its way through a seine as easily as a bee goes through a spider web and that is one of the reasons why it has been left severely alone by fishermen. The other reason is that when cooked fresh its flesh is pasty and of poor flavor. The Bureau of Chemistry, however, has discovered that when smoked this fish is the equal, if not the superior, of any other smoked fish relished by fish eaters. It is found in the sluggish waters of the great lakes region, the Mississippi valley from Minnesota to Louisiana and in the east from Florida to New York. It is variously known as dogfish, mudfish, lake lawyer, marshfish, cypris trout, willowpike and many other names.

Another remarkable example of food ignorance is brought to light by the bulletin of the Bureau of Fisheries on the sablefish, alias black cod. This fish has been known for many decades but only a few have eaten it. And yet the Bureau pronounces it one of the best food fishes to be found in any water. Its flesh is firm, white and flaky with a full rich flavor. A high authority in the department of home economics of the University of Washington says that

(Continued on Page 32)

# Bakers Want Continuation of State Control

## War Measures Find Favor With Industry and Legislation is Looked for to Continue the Good Regulations

THE modern baker is a business man. The product of his oven totals millions of loaves. He numbers as his daily customers forty per cent of the twenty-five million families in the United States. He has built up an enormous industry by making a better loaf than that drawn from the kitchen oven by the housewife and by compelling recognition of the fact that every bakery practice between the sack of flour and the loaf delivered at the door of the consumer is above criticism. The bakers are not satisfied to have forty per cent of the business of baking bread. They believe so firmly in their product that they want to make eighty per cent of all the bread baked, as is the case today in England. They know that they cannot get more business unless they first get the confidence of the public and so the bakers of the country are asking the State Legislatures which are in session in nearly every state to enact laws which will establish high standards of quality and require the operation of bakeshops in a sanitary manner by healthy workmen.

### Law Drafted

Such a law has been drafted for the consideration of the General Assembly in Indiana. Indiana bakers are well organized. They are alive to their own interests and they know by experience that everything they do for the protection of the consumer and the baking of a better loaf of bread will help their business. The bill which is before the Indiana Legislature is patterned very closely after the Sanitary Food Law, which has been in successful operation for ten years. Some of the sections of the bill are not necessary except as they focus the attention of the Legislature and the public upon the fact that the baking industry is concerned in protecting itself from every condition which savors of uncleanliness or which tends to the production of poor bread.

The regulation of the bakeshop is a police power vested in the State Board of Health and the enforcement of the bill, should it become a law, is made the duty of the food and drug officials through its laboratories and inspectors. After providing that the buildings and rooms used as bakeshops are properly lighted, fitted with sanitary plumbing and kept always in a cleanly and sanitary condition, the bill gives particular attention to the old practice of using the bakeshop or parts of the shop as sleeping or living rooms. The bill goes so far as to require separate rooms for changing and hanging wearing apparel. It prohibits the use of bakeshop equipment such as tables and troughs as chairs or beds. It abolishes the insanitary practice of allowing animals in the shop. It requires every employe to have clean hands and arms. A special section discusses the health of employes and requires health certificates showing the absence of any contagious or infectious disease.

The stale bread delusion has cost the baker and consumer a great deal of money. Before the United States Food Administration licensed the baker and told him to stop his extravagant practice of taking back stale loaves, the baker never knew how much business he had done until his driver had brought back to the shop every loaf the grocer thought he could not sell. For the past year and a half a loaf of bread once sold has remained sold. The suggested bill recognizes both the bad economics of taking back the stale loaf and as well the possibility of such returned loaves being disease breeders among the consumers and a source of contamination by mould or rope at the bakeshop.

### Weight of Loaf

The bill proposes to save for the baker and consumer another excellent feature of the control exercised by the United States Food Administration, namely, that of fixing the weight of the loaf. In years past the baker has sold his loaf at a standard price and he has changed the size of his loaf from time to time to meet the advancing or lowering costs of flour and labor. Such a standard has not been satisfactory. No other foodstuff is sold by the price unit. For the protection of the consumer the bill provides that bread shall be sold by standard weights and these weights are fixed at three-fourths of a pound; one pound; one and one-half pound; two pounds or other pound weights. When flour is high the pound loaf sells at a proportional high price. When flour is cheaper the size of the loaf remains the same, but the price is reduced. In order that the three-fourths pound loaf may not be sold for the pound loaf, the wrapper will show the exact weight of the loaf, and where the bread is sold unwrapped the label carries information to the consumer.

The bakers of Indiana want this legislation. They want it for their own protection and because they realize their customers will buy more bread if they know that it is made under the sanitary conditions required by the state law. But the desire for legislation is not confined to the group of bakers who live in Indiana. The bakers in every state are better organized than ever before. They have their local associations, strong state organizations and they are all affiliated with the National organization that speaks for the entire baking industry. If the bakers of every state do what the best judgment of the leaders in the industry counsel as expedient and wise, it is probable that before the beneficial effects of the regulations of the United States Food Administration have long been forgotten, every baker will operate under the direction of wise sanitary legislation.

**Section 1.** Be it enacted by the General Assembly of the State of Indiana that every building, room or other place occupied or used as a bakery, that is, for the production, preparation, storage or display of bread, cakes, pies and other bakery products intended for sale for human consumption, shall be clean, properly lighted, drained, and ventilated. Every such bakery shall be provided with adequate plumbing and drainage facilities, including suitable wash sinks, toilets and water closets. All toilets and water closets shall be separate and apart from the rooms in which the bakery products are produced or handled. All wash sinks, toilets and water closets shall be kept in a clean and sanitary condition and shall be in well lighted and ventilated rooms. The floors, walls and ceilings of the rooms in which the dough is mixed and handled or the pastry prepared for baking or in which the bakery products or ingredients of such products are otherwise handled or stored, shall be kept and maintained in a clean, wholesome and sanitary condition. All openings into such rooms, including windows and doors, shall be properly screened or otherwise protected to exclude flies.

**Section 2.** The Indiana State Board of Health may, after inspection, give notice stating the time within which any such bakery not in compliance with section one of this act shall be vacated and cease to be conducted for the production and preparation of bakery products, and after two years from the date of the taking effect of this act, the State Board of Health shall, after inspection, give notice for the vacation for the production or preparation of bakery products of any such bakery or of other buildings and premises which do not comply with the provisions of this section and failure to comply with such order of vacation from the State Board of Health shall be deemed a violation of this act. The working rooms referred to in Section 1 of this act shall not be used for purposes other than those directly connected with the preparing, baking, storage and handling of food, and shall not be used as washing, sleeping or living rooms, but shall at all times be separated and closed from the living and sleeping rooms. Separate rooms shall be provided for the changing and hanging of wearing apparel and such rooms shall be kept clean at all times.

**Section 3.** No employee or other person shall sit or lie upon any of the tables, benches, troughs, shelves, etc., which are intended for the dough or baked products. No animals or fowls shall be kept or allowed in any bakery or other place where bread or other bakery products are produced or stored. Before beginning the work and before preparing and mixing the ingredients every person engaged in the preparation or handling of bakery products shall wash the hands and arms thoroughly and then rinse in clean water; and for this purpose sufficient wash basins together with soap and clean towels shall be provided. Every person engaged in such work shall wash the hands and arms after using toilet rooms or water closets. Employees or other persons affected with or not showing certificate of examination as required herein to be free from any venereal disease, smallpox, diphtheria, scarlet fever, yellow fever, tuberculosis or consumption, bubonic plague, Asiatic cholera, leprosy, trachoma, typhoid fever, epidemic dysentry, measles, mumps, German measles, whooping cough, chickenpox or any other cutaneous, infectious or contagious disease shall not work nor be permitted to work in any such bakeries, nor be permitted to handle any of the products therein or delivered therefrom. The healthfulness of employees shall be evidenced by a certificate of medical examination made at such times and the certificate in such form and so kept as shall be prescribed by the State Board of Health. Such medical examinations may be made by any competent physician, including state, city, town and county health officials or their agents of recognized standing and whose qualifications for making such examinations are approved by and evidenced by certificate from the State Board of Health. Any such physician who gives such certificate of healthfulness without thorough examination, or who give such certificate of freedom from disease knowing or suspecting the employee to have or to be infected with any of the diseases specified in this section, shall be guilty of a violation of this act and subject to the penalties provided for violation thereof and on conviction shall also be disbarred from making further examinations under this section.

## Cleveland Prohibits Stale Bread Returns

An ordinance has just been passed by the council of the City of Cleveland prohibiting the practice of accepting the return of stale bread by the bakers. The ordinance follows:

Be it ordained by the council of the City of Cleveland, state of Ohio: That

Section 1. Whoever returns any bread or other bakery products to any person, baker, baking firm or concern, or his or their sales agent or representative or other employee, or accepts any cash payments or credit allowance for any unsold or unused bread or other bakery products, or exchanges any bread or other bakery products for other bread or other bakery products shall be deemed upon conviction thereof, shall be fined not less than ten dollars nor more than one hundred dollars for the first offense, and not less than twenty-five dollars nor more than two hundred dollars for the second offense, or imprisoned not more than one month, or both.

Section 2. Whoever accepts the return of any bread or other bakery products, or whoever, being engaged exclusively or otherwise in the sale, manufacture, distribution or delivery of bread or other bakery products, makes any cash payment for, or gives any credit allowance for any unsold or unused bread or exchanges any such products for other bakery products, shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be fined not less than ten dollars nor more than one hundred dollars for the first offense, and not less than twenty-five dollars nor more than two hundred dollars for the second offense, or imprisoned not more than one month, or both.

Section 3.—This ordinance is hereby declared to be an emergency measure and shall be in force from and after its passage and approval by the mayor.

Passed December 30, 1918.

Approved by the mayor January 4, 1919.

**Section 4.** The State Board of Health shall make all necessary rules and regulations for carrying this section into effect including the forms of certificates and the time and place for examinations of such employees and including reasonable and uniform fees for the examination. The analysis or examinations of any specimens necessary in connection with such medical examination of employees shall be made free at the laboratories of the State Board of Health or of any city or town department of health as the State Board of Health may designate. The State Board of Health or any city, town or county board of health may order any such medical examination through its own qualified officers or agents at any time deemed necessary, which examination shall be free and at the expense of the board making the examination; provided however that any employee or employer may have their own physician present at any such examination.

**Section 5.** All water used for mixing the dough or used in the mixing of any other bakery products shall be pure and wholesome. In case the water supply is taken from a well, the baker shall have a certificate of purity from the State Board of Health, or from any city or county health board within the State of Indiana. Bakers shall not use the water from wells, the water of which is not so certified to be pure and wholesome.

**Section 6.** The wagons, boxes, baskets and other receptacles in which bread, cakes, pies or other bakery products are transported, shall be kept in a clean and wholesome condition at all times and free from dust, flies and other contamination. All show cases, shelves, or other places where bread or other bakery products are exposed for sale, including the bread, cake and pie boxes, or cases in any grocery store, or other retail place, and in restaurants, or other places where bakery products are sold, shall be kept well covered, properly ventilated, well protected from dust and flies, and shall be kept in a sweet, clean and wholesome condition at all times. Boxes or other receptacles for the storing or receiving of bread and other bakery products, before and after the retail stores and selling places are open, shall be so constructed and placed as to be free from the contamination of streets, alleys and sidewalks and shall be raised at least two feet from the sidewalk or street, and shall be kept clean and sanitary and no bread shall be placed in any such box along with meats, fish or similar foods. All such boxes shall be provided with private locks and shall be locked at all times except when open to receive or remove bread or other bakery products and when being cleaned.

**Section 7.** All materials used in the production or preparation of bakery products shall be produced, transported, stored, handled and kept in a way to protect them from spoilage and contamination, and no material shall be used which is spoiled or contaminated or which may render the bread or other bakery product unwholesome or unfit for food. The ingredients used in the production of bread and other bakery products and the sale or offering for sale of bread and other bakery products shall comply with the provisions of the Indiana laws against adulteration and misbranding. No ingredients shall be used which may render the bread or other bakery product injurious to health. No ingredient may be used which may deceive the consumer or which lessens the nutritive value of the bakery product without being plainly labeled, branded or tagged or having a sign making such facts plain to the purchaser or consumer under regulations to be prescribed by the State Board of Health; provided however, that in case of bread to be sold by the loaf such labeling shall be, in the case of unwrapped bread, placed upon the same sticker as hereinafter provided to show the name of the manufacturer and the net weight or measure. All labels and other printed statements or representations made in connection with the sale of bread or other bakery products shall be free from deceptive or misleading statements.

**Section 8.** All handling or sale of bread or other bakery products and all practices connected therewith shall be conducted at all times so as to prevent the exchange or distribution of contamination or diseases among consumers, so as to prevent the exchange and distribution of the infection in bread-making commonly known as "rope" and other bakery infections, and so as to protect the food supply against waste, and no bread or other bakery product except as hereinafter provided shall be returned from any consumer or other purchaser to the dealer or baker, nor from any dealer to the baker, and no baker or dealer shall directly or indirectly accept any returns or make any exchange of bread or other bakery product from any dealer, restaurant or hotel keeper, consumer or other person, and no bread or other bakery product shall be sold or delivered from one retail dealer to another; but all bread and all other bakery product shall be kept moving to the consumer in as a direct line as may be practicable and without unreasonable delay and without any exchange, return or practice whatsoever which may disseminate contamination, disease and fraud among consumers and infection among bakeshops, or which may cause waste in the food supply. Provided that this section shall not be construed to apply to crackers or to such other bakery products as are not put up for immediate consumption and packed at the place of production in cartons, cans, boxes or similar permanent containers and where the product is so packed and sealed at the place of production as to fully protect the freshness and wholesomeness of the product and to protect it from contamination, adulteration and fraud in the channels of trade and which remains in the original unbroken package in which such bakery product has been packed, except in so far as may be necessary to prevent waste in the food supply. Provided further the State Board of Health may by rules and regulations establish such exemption as may be necessary to facilitate the sale of any accumulated or unsold stocks of wholesome bread or other bakery products, but any such exemptions or sales shall not be in violation of the expressed purposes of this section. Provided further that the phase "permanent containers" **shall not be construed to include** the paper or parchment wrappers as used in wrapping loaves of bread. The State Board of Health shall make all necessary rules and regulations for carrying this section into effect.

**Section 9.** Bread to be sold by the loaf made by the bakers engaged in the business of wholesaling and retailing bread, shall be made and sold of the following standard weights and no other namely a loaf weighing three quarters of a pound, a loaf weighing one pound, a loaf weighing one and one half pounds and a loaf weighing two pounds, three pounds, four pounds or other pound weights. These shall be the standard weights for bread to be sold by the loaf and such bread shall not be sold of other weights. The commissioner of weights and measures shall adopt and establish by rules and regulations such reasonable tolerances or variations within which these weights of standard loaves shall be kept. Provided however that such tolerances and variations shall not exceed one ounce per pound over and one ounce per pound under the standard unit weights. Every loaf of bread made or procured for the purpose of sale, sold or offered for sale shall have affixed thereon "Approved by Commissioner" in a conspicuous place a label upon which there shall be printed in plain type, the weight of the loaf stated in pounds or fraction of pounds, or both as the case may be, together with the business name of the baker or manufacturer of the loaf. In the case of wrapped bread, such information shall be stated in a plain position upon the wrapper of each loaf, and in the case of unwrapped bread shall be stated upon a label no larger than one by one and one-half inches in size and not less than one inch by three-quarters of an inch, and such label affixed to an unwrapped loaf shall not be made from paper containing ingredients injurious to health and shall not be affixed in any manner or with any gums or pastes which are unsanitary and unwholesome. It shall be the duty of the commissioner of weights and measures and of the sealers of weights and measures of any city, town or county or any agent of such for the enforcement of weights and measure laws and ordinances under regulations prescribed by the commissioner of weights and measures to enforce the provisions of this section.

**Section 10.** Any person, firm or corporation who violates any of the provisions of this act shall be deemed guilty of a misdemeanor and shall, upon conviction of the first offense, be punished by a fine of not less than ten dollars ($10) nor more than thirty dollars ($30); for the second offense by a fine of not less than twenty-five dollars ($25) nor more than one hundred dollars ($100), to which may be added imprisonment in the county jail for not less than thirty (30) days nor more than ninety (90) days.

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## Pennsylvania Takes Lead as Buckwheat State

Pennsylvania farmers not only came back to their own as the leading buckwheat producers of the nation, but eclipsed all other production records with the 1918 harvest. The 1918 production is estimated by the Pennsylvania Department of Agriculture at 6,191,600 bushels, and New York state, which captured first honors in 1917, is shown to have produced but 4,725,000 bushels in 1918. This gives Pennsylvania a lead of almost a million and a half bushels over New York and the total production is one-third of the entire amount of buckwheat grown in the country.

# Tests Storage and Fresh Eggs

## Massachusetts Commissioner Finds That One Kind Is As Good As the Other

## False Advertising Law Is Used To Convict Retailers Who Fool the Public

*By Herman C. Lythgoe*

Director of Division of Foods & Drugs of Massachusetts

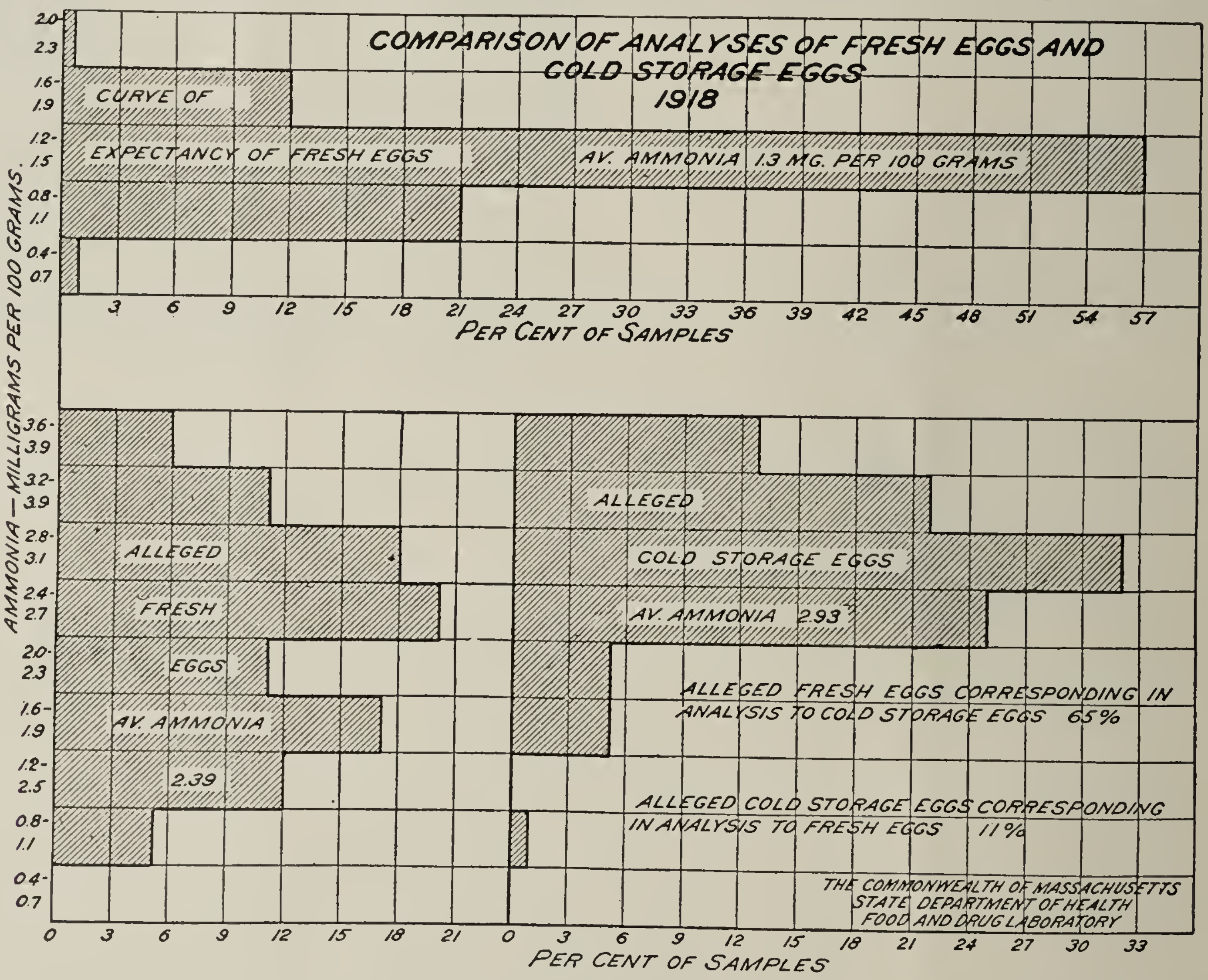
THE Massachusetts cold-storage egg law provides that the containers of all eggs which have been in cold storage and are offered or exposed for sale, must be labeled with the words "Cold Storage Eggs." Whenever such eggs are sold the package delivered to the customer must be labeled "Cold Storage Eggs." The character of the markings is such as shall be approved by the Commissioner of Health.

When one considers that the technical preparation of a case alleging a violation of this law involves the absolute proof that the eggs in question had been stored in a cold-storage warehouse, it is evident that the law can be violated with comparative ease by a person who may be sufficiently clever to conceal or destroy the necessary evidence under his control. Notwithstanding this difficulty, the inspectors of the Massachusetts State Department of Health have obtained evidence of violations of this law sufficient to secure numerous convictions. It was a well-known fact that this law was being frequently violated, and after some difficulty a procedure was evolved and put into operation which has been very effective in curtailing, to some extent, the abuse of the character described.

The State of Massachusetts a few years ago passed a law relative to false advertising, popularly known as the "blue sky law." This law, like most laws, possesses many remarkable properties not recognized at the time of its enactment, and the State Department of Health has used it successfully to control violations of our egg law. In order to prove a case for violation of this law it is necessary to show, first, that the advertising in question was false, and, second, that the person making the advertisement either knew or could, upon reasonable investigation, have ascertained its falseness. The procedure is as follows: the inspector with a witness enters the store and asks the clerk for one dozen "fresh eggs," "strictly fresh eggs," "near-by hennery eggs," or eggs of some other variety, as per the signs in the store. He then delivers the eggs to the analyst, who examines them by the candling method, and thus separates the samples into fresh or old eggs, according to the size of the air cell. A person soon becomes proficient in this work, and can examine a large number of samples in a very short time. The segregated samples are then broken out (generally three eggs are used for this purpose), thoroughly mixed with an egg beater, and a determination of the ammonia content is made upon a 20-gram sample of the mixed material by the micro method of Folin. (See "Harrington's Practical Hygiene," fifth edition, page 95, or the Report of the Massachusetts State Board of Health, 1911, page 431, for a description of this method as applied to eggs.) It is an easy matter to distinguish between fresh and stale eggs by the ammonia content. The chemist who testifies in these cases must actually know the appearance of the air cell of a newly laid egg, and one, say, four weeks old, and he must also know by actual experimental work the ammonia content of newly laid eggs and the rate of increase in ammonia with age. If one can show that the eggs are at least a month old the court will usually be of the opinion that they are not entitled to be called "fresh."

Uncontradictory, expert evidence of the meaning of the word fresh is easily furnished by means of the dictionary. The question of possible deterioration by hot weather during transportation, or while being gathered by the farmer, which question will be raised by the defense, can usually be eliminated by collecting the samples during December, January and February, when the hot weather is not very prevalent. Furthermore, during that season the hens are not laying very extensively, and it is practically impossible for the defense to claim that the eggs can be fresh.

Strictly fresh eggs contain less than 1 milligram of ammonia per 100 grams of egg, but reasonably fresh eggs may contain as high as 2 milligrams of ammonia per 100 grams of egg. Naturally, these limits do not include eggs which are allowed to become rotten before being removed from the nests, which many egg dealers would have us believe is the usual, and, no doubt, proper procedure on the part of the average farmer.



Since the ammonia content of the egg increases with age, an egg ceases to be in the class of fresh eggs when it contains more than 2 milligrams of ammonia per 100 grams of egg, but it is entitled to be considered as an egg unqualified, or probably a "selected" egg, by which term the public understands the egg to be an unusually good egg, but which, to the dealer, and, in this respect, strange to say, his definition is correct, means any edible egg he may care to select. When the ammonia content exceeds 4 milligrams per 100 grams the egg passes into the class of decomposed eggs. Eggs of this latter class may also be considered "selected" eggs.

During December, 1917, and January and February, 1918, analyses were made in the Food and Drug Laboratory of the Massachusetts State Department of Health of 133 samples of eggs sold as fresh eggs, and of 100 samples of eggs sold as cold-storage eggs. These figures are exclusive of many examinations made by the candling method alone, and are also exclusive of those eggs in both classes that proved to be rotten. These analyses have been plotted, and the plots, together with the curve of expectancy of fresh eggs, are shown in the accompanying chart. The curve of expectancy of fresh eggs was computed from Prof. George C. Whipple's probability chart. A glance at the chart shows that there was not much difference in the quality of the alleged fresh eggs and the cold-storage eggs. Many of the cold-storage eggs were found to be of as good quality as fresh eggs of known authenticity. But still more remarkable is the large number of "fresh" eggs which are no better than the cold-storage product. The figures show that if one went to a retail store and asked for cold-storage eggs the chances of getting what were, to all intents and purposes, strictly fresh eggs were about 1 to 6. If, on the contrary, one asked for fresh eggs, his chances of getting eggs of the same quality as cold-storage eggs were about even.

Many of the so-called "fresh" eggs are known in the trade as "fresh western" eggs. Following in the trail of these eggs we find that they are gathered by the farmer, who, as soon as he has acquired a caseful, ships them to his local broker. This naturally takes some time in the late fall months, owing to curtailment of production. The brokers ship in carload lots to the east, and when the eggs arrive they go to the storage houses of the local brokers and are kept about 45° F. until sold to the retailer. The retailer keeps the eggs about 45° F. until sold to the consumer. Thus, the eggs cannot be less than five weeks old, and probably are six and possibly eight weeks old when they reach the consumer.

The significance of the cooling room about 45° F. is due to the cold-storage law, which makes such

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# Corn Milling Should Be Done by Scientific Methods

## In This Article the Author Tells of the Advantages of Thoroughly Knowing the Principles That Are Necessary to Produce a Good Product

*By W. N. Adams*

EDUCATION is resolving itself into the first intentions of its existence, which was the art of asking questions so as to bring out the latent power of the mind. In scholastic circles this is called the Socratic method, but in plain Anglo Saxon it is the method of common sense. The best lawyer, the best doctor, the best teacher, the best business man and the best citizen, is the man who has studied and developed the art of asking the main question.

All science, all investigation, all art, all philosophy and all modern business is the result of intelligent investigation, or in other words, of asking the right question at the right time, and in the right way.

### Ought—The Big Word

There is a big word in vogue today. That word is "ought." Around that word is gathered all the forces of this highly progressive age. Every man in this nation today is thinking about his responsibility, for responsibility comes out of the word "ought." When we begin to think about what we ought to do, three questions arise, and these three questions are fundamental. No man can possibly ask more than three questions about anything. There may be, and in fact there will be, other questions asked, but they all group themselves around these three. These fundamental questions are: What? How? and Why? These little words are the beginning of history, science and philosophy. If you ask What a thing is, you necessarily go into the history of the thing. If you ask How a thing is done, you necessarily go into the science of the thing. If you ask Why a thing is done, you necessarily go into the philosophy of it.

The advantage of scientific knowledge in the manufacture of corn products will involve the three questions: What? How? and Why? I shall be limited in a large measure to the second question which contemplates the science of corn milling. But before entering upon that phase of the question it would be well to think about the history of corn milling and corn products.

We all realize that until recently corn milling to a certain extent has been a failure. According to the Department of Commerce Bulletin, "Census of Manufactures," prepared under the supervision of W. M. Stewart, chief statistician, there were more corn mills in operation and more corn products made in 1904 than were made in 1909; and there were more corn products produced in 1909 than were made in 1914. Nothing can stand still. Either it must go forward or backward, and up until recently corn milling has been going backwards. One of the chief reasons for this is the lack of efficiency not only in the manufacture of corn products, but in the merchandising of them.

The history of corn milling and corn products convinces any one who has given the matter any thought the necessity of scientific corn milling, which brings me to the second phase of my subject:

### Co-operation Essential

Means—first co-operation, second proper methods of manufacture, third efficiency, fourth standardization and publicity. The business world has outgrown the rule of the "survival of the fittest." The prime reason for the organization and maintenance of the American Corn Millers' Federation is co-operation and mutual helpfulness. It is a magnanimous attitude for the Federation to assume, but we are assuming the responsibility of telling our fellow members and competitors how to properly prepare their products. In this way, we help them as well as help ourselves and help the corn milling industry as a whole. Not only do we expect to show the uninitiated how to prepare their products, but we hope to be mutually helpful to them in the merchandising of these products; and it is my purpose in this paper to show the methods and advantages of scientifically manufacturing corn products and the paramount importance of adopting high standards which will put the merchandising of corn products on the high plane they should occupy.

The discussion of this phase of the subject will necessarily be long and somewhat tedious, but I hope it will be helpful. A large per cent of the corn products now manufactured are more or less perishable. Some time ago, I stated that corn was dynamite in normal years, and that this year it was nitro-glycerine, but we can make corn products as safe as commercial face powder. There are several methods used in the manufacture of meal, but there are only two methods that I know of that change the meal from a perishable to a staple product. At present a large per cent of the meal manufactured can be compared to fresh fruit or cream, which must be consumed promptly, otherwise it will spoil. I take it that we are all interested in the changing of this perishable product into a staple commodity—in transforming the cream into butter. Now, the big question is—How?

The result of our 20 years' milling experience in corn products and the result of the research we have made in our own laboratory has convinced us that the following elements enter into the proper methods of producing safe corn products. First, the proper method of kiln drying. This embodies not only kiln drying the product, but carefully cooling the product afterwards, the correct way of testing the products to see that they are properly dried as well as testing the corn to see that the milling corn is uniform. Second, the result and separation of fat. Third, acidity.

Our experience has convinced us that moisture more than any one element is the direct cause of corn products getting out of condition, and for that reason the elimination of moisture is necessarily one of the prime factors in the proper methods of manufacturing corn products. The United States Department of Agriculture Bulletin No. 215 states that degerminated meal from which practically all the fat had been extracted or down to .70 of 1 per cent, but which contained 16.86 per cent moisture and only 14.07 cc acidity became musty at the expiration of 20 weeks and the acidity had increased to 44.3 cc. Yet this same meal manufactured by the same mill at practically the same time when dried down to 11.41 per cent moisture was in perfect condition at the expiration of 24 weeks, and the acidity was only 23.2 cc. This clearly demonstrates that kiln drying of corn products is absolutely necessary. Not only should moisture in corn products be reduced to from around 11 to 14 per cent, depending upon the fat contents, but they should be sterilized by the application in kiln drying of an intense heat for a short period of time. The application of this intense heat kills the bacteria.

We all know that kiln dried corn which is dried by a slow process will germinate. We know that the best seed corn usually contains less than 12 per cent moisture, which clearly indicates that the reduction of moisture alone is not sufficient, but the moisture must be reduced by such an intense heat as not only to take out the moisture, but to kill the bacteria at the same time. In other words, corn products must be sterilized.

### Cool Before Packing

After applying this intense heat, it is then necessary to cool the corn products before packing. One of the most serious mistakes made by some corn millers is that of packing and shipping corn products before artificial heat has been removed. This has a tendency to cause them to sweat and sometimes sour. Corn products leaving our kiln dryers run from 70 to 80 centigrade, or almost 200 deg. F. While leaving the cooler they only run from 40 to 45 and when leaving the packer only run from 35 to 38, or about 105 F.

While kiln drying is absolutely essential, it is almost as necessary that every mill have a first class method of testing, not only the corn going into the mill, but the products coming out. It is necessary to keep the moisture of the corn going into the mill practically uniform. If you are running 17 per cent corn one hour and your kiln dryers are set to reduce this 17 per cent to 11 per cent, then it necessarily follows that if in the next hour the moisture of the corn runs 19 per cent, the moisture of the products mill will run around 13 per cent. We have found it wise to take the moisture test of our corn as we unload it and separate the corn as to moisture and blend it so as to keep the moisture of our milling corn uniform. Also found it exceedingly helpful to make a moisture test of our milling corn and of our different corn products every hour.

## Corn—the Food Supply Governor

Few of the states grow more food than that necessary to maintain their people. The states in the great corn belt produce the surplus which meets the deficiency in the food supply of the southern and eastern states and piles up the wonderful stores needed in Europe.

When the corn crop is large and when it is well matured there is no doubt as to the food situation. Famine is a long way off. But when blistering droughts or long continued rains reduce our normal yield, the situation becomes serious. The price of pork goes up, dairy products are higher, almost every staple food is worth more. Our corn bins are the measure of our food supply. To a very large extent they also determine the prosperity of our people.

In this way we keep the moisture contents of our products uniform. This is not only a safe but a sane policy. Just as it would be unsafe to run the moisture of your products 2 per cent higher than necessary, so it would be bad business to dry out two per cent more moisture than good milling methods require. At the present price of corn on thousand barrels mill 2 per cent additional loss in drying would mean something more than $150 per day.

The reduction and separation of fat and the effect of fat on corn products as shown in the United States Department of Agriculture Bulletin 215 shows results of exhaustive tests as to the effect of fat on the keeping qualities of corn products. This bulletin shows the whole kernel meal when dried down to 11.79 per cent moisture, became rancid in 20 weeks, and at the expiration of 16 weeks contained 46.5 cc acidity.

Our experiments have shown that meal from which no feed had been removed became rancid and took on an excessive amount of acidity much quicker than meal containing the same amount of fat from which the bran had been removed.

### Eliminate Bran

In other words, while there is absolutely no question but that fat enters into the keeping qualities of meal, the elimination of the bran, even though the fat is not reduced, materially helps the keeping qualities. We developed the fact that whole kernel meal contained 3.80 per cent fat, and dried down to 12 per cent moisture had over 40 cc acidity at the expiration of 15 weeks, and showed a tendency to become rancid at the expiration of 16 weeks, while standard meal contained 4.95 per cent fat or over 1 per cent more fat than whole kernel meal had less than 30 cc acidity at the expiration of 20 weeks, and at the expiration of 24 weeks showed only slight evidence of becoming rancid. Both of these meals were ground from corn running 21 cc acidity, but while the whole kernel meal ran 21 cc acidity, the standard meal only contained 18.4 cc when fresh milled.

The result of our many weeks' tests in our laboratory and the result of the government investigations as outlined in Bulletin 215 shows conclusively that fat enters into the keeping qualities of corn products. This being the case then, the necessity of reduction of fat is self-evident.

As far as we have been able to find out, there are only two first class methods of removing or eliminating the germ or fat. Both methods have their good qualities and ardent supporters. We will not discuss what is known as the original degerminating methods, as the products from this method are standardized and high class, and these products are already staple and not perishable. Then, too, this method is more or less wasteful in both food and fuel.

I take it the majority of us are interested in the roller system of degermination. The roller system of degermination correctly handled gives a larger per cent of food products with a minimum consumption of power, but unfortunately the roller system is more or less under suspicion because it has not been standardized; products of same have not been standardized and because simply grinding meal on rolls does not mean the products are degerminated. We know of a great many large mills grinding meal on rolls who are not degerminating. To properly degerminate on the roller system it is necessary to have the proper corrugations, proper flow of the mills, proper separation, proper tempering and aspiration, and above all, first class, expert corn millers. No first class flour miller would expect his floor sweeper to mill successfully for him. Yet, a number of corn mills are operated by millers who haven't much more technical knowledge than the ordinary floor sweeper. Some of our own members doubt the ability to degerminate with rolls, but there is absolutely no occasion for this doubt. We have been making some experiments in our laboratory the last few weeks with the following results:

### Results of Experiment

On corn averaging 3.70 per cent fat we made a degerminated cream meal running 1.42 per cent fat; a standard meal running 4.75 per cent fat and hominy feed running 9.90 per cent fat. The acidity of corn before cleaning was 25 cc; when milled was 22 cc. The acidity of the cream meal was 16.50 cc. The acidity of the standard meal was 19.50 cc. Moisture of the corn when ground was 17 per cent. The average moisture of the meal was 11.2 per cent. We had 7 per cent shrinkage; made 20 per cent feed, making 43 per cent degerminated cream meal and 29 per cent standard meal. This per cent is based on 100 per cent of the whole corn as it went into the mill. Actually 60 per cent of the meal we made was degerminated cream meal and 40 per cent of the meal was standard. Our mill is so arranged that we can cut any stream into any product we care to.

While making this run, we obtained the following results in making a fat test of each stream. These results should be interesting:

1st Stream run 2.70 per cent fat
2nd Stream run 1.90 per cent fat
3rd Stream run .90 per cent fat
4th Stream run .65 per cent fat
5th Stream run .30 per cent fat
6th Stream run 1.75 per cent fat
7th Stream run 1.33 per cent fat
8th Stream run 2.75 per cent fat
9th Stream run 7.57 per cent fat
10th Stream run 5.20 per cent fat
Feed Stream run 9.90 per cent fat

## Corn Now Coming Into Its Own

**Out of the European war corn has come into its own. Always recognized as a staple food from the time it brought our forefathers through their first bitter winter at Plymouth, we now know that better than any other food it meets our every requirement. Corn carries the fat, it provides the sugar, it supplies a wholesome starch by which our dietary may be fully rounded out.**

**Corn oil is fast becoming our table fat. Corn sugar filled the breech last summer during the sugar famine. Corn flour made Liberty Bread possible.**

We ran streams Nos. 2, 3, 4, 5, 6 and 7 into the degerminated cream section. We ran streams Nos. 1, 8, 9 and 10 into the standard meal section. You will notice that streams 3, 4 and 5 show an average of less than 62 per cent fat. These are the straight table grit streams.

In making corn flour we use identically the same streams as outlined above for the degerminated cream meal. In making an export meal running around 2.60 per cent fat it is only necessary for us to run streams Nos. 9 and 10 into our feed.

### Fat Will Vary

Of course, the fat in degerminated products will vary somewhat with the amount of fat in the corn. However, the following is the result given us on a shipment of a number of cars, which gives you an idea about how nearly uniform you can keep fat on a roller degerminating system; provided, first, your mill is properly equipped, second, that you have first class millers, and third, that you have either a laboratory in your own mill or have connection with a laboratory so you may know just what you are doing. The amount of fat shown in each case represents the average test furnished us on different cars shipped:

| | |
|---|---|
| 1.45 | 1.50 |
| 1.45 | 1.30 |
| 1.17 | 1.30 |
| 1.25 | 1.35 |
| 1.15 | 1.28 |
| 1.37 | 1.60 |
| 1.35 | 1.40 |
| 1.33 | 1.50 |

(Of course we can change the percentage of fat by simply eliminating or adding different streams).

We have found it very helpful to know the degrees of acidity in corn and products. We have found that all corn contains an acid reacting substance which gives the corn a certain degree of acidity. We have tested corn running as low as 11 cc and as high as 80 cc. The United States Department of Agriculture Bulletin No. 102 shows that the range in acidity in corn varies from 9 to 10 cc to over 100 cc. We have found that the principal source of acidity in corn is the germ and bran. At the same time, meal that has been degerminated but not properly kiln dried and sterilized will show a marked increase in acidity with time.

We have found that the acidity increases more rapidly in meal running high in fat than it does in a meal with a low fat content. Yet, we have found that the elimination of the bran materially retards the increase in acidity. We have found that sterilization with intense heat greatly retards the increase in acidity, and after the sterilization is properly completed and the moisture reduced to 11 per cent or below, the increase in acidity is practically checked.

### High Acidity, Low Germination

We have found as a rule that the degrees of acidity in corn vary inversely with its germinating power. High acidity corn usually runs low in germination. Extremely low

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# The Supreme Court Under Ancient

## Three Judges Dissent From and, While All Agree That Under the Existing Law

### The Court Said

"Your product is a wholesome food, you have complied with the laws regulating the labeling and marking of your product, but the legislature of Ohio some years ago passed a law saying that condensed skimmed milk should not be sold in the state, therefore, as condensed skimmed milk forms the body of Hebe, the State of Ohio cannot be restrained from interfering in its sale": boiled down to the language of everyday speech that is the decision of the United States Supreme Court which, unless a rehearing is granted, deprives the Hebe Company of the right to sell its product in the State of Ohio.

### Dissenting Judges Said

"Skimmed milk, labeled as such, may be sold in Ohio. The legislature has shown no intention of condemning it as an unwholesome article of food. Condensed, it is no less wholesome. Hebe is a compound of which skimmed milk forms a part. We are unable to find in the Ohio statutes anything which prohibits the sale of condensed skimmed milk when it is a part of a wholesome compound and labeled as such. We think that the legislature of Ohio intended to deal with condensed milk when sold as such and to make it an offense to sell it when of less than the required purity. In our opinion, reason alone should be sufficient to warrant a reversal of the lower court's decision and the Hebe Company's contention should be sustained." This is the gist of the dissenting opinion rendered by Justices Day, Van Devanter and Brandeis.

There has been no decision of the United States Supreme Court recently rendered which more clearly points out the danger to manufacturers of food products in the ambiguity of some of our statutes. Here we have a clear cut, well defined disagreement between the men who occupy the highest judicial positions in the country, as to what the law makers meant and while the opinion of the court seems to be unanimous as to the wholesomeness of the product, this wholesome food must not be sold in Ohio through the ordinary sales channels.

The Ohio law involved in this case was passed before scientists had demonstrated the fact that skimmed milk has great food value, before the Department of Agriculture of the United States was urging the use of skimmed milk for food. Skimmed milk in those days was looked upon as wastage and was mixed with the pigs' feed or was dumped on the ground. The term "food conservation" was unknown then as we know it now in the light of recent events, and the legislators who framed this law could buy country butter and creamery milk for about one-fourth of the present prices, and could eat and drink all they wanted of these delectable foods without a single pang of conscience brought on by the newspaper headlines telling of millions of humanity starving, or a billboard injunction to eat less and help feed Europe.

### Where Do Others Stand?

While discussing this decision with manufacturers and lawyers we are reminded that Ohio and some other state laws classify foods from which some of the natural nourishing elements have been extracted as adulterations. If this phase of the law should be as strictly interpreted what is to prevent the manufacturers of condensed milks from being put out of business because they find it necessary to extract some of the butter fat or add more skimmed milk to keep their product uniform? What is to prevent the closing of the markets to the sale of cocoa because cocoa is chocolate with the fat extracted?

The American Food Journal holds no brief for the Hebe Company and if there had been a serious question of the wholesomeness or unwholesomeness of "Hebe" we would not seriously concern ourselves with the legal misfortunes of this company, but we believe that the decision of the United States Supreme Court in this case should drive home to the minds of the legislators of every state in the Union the vital need of repealing food laws that were passed during the mid-gustatorial period when food was something to be gloated over, not worried about. Until Ohio legislators see fit to revise or amend the food statutes of the state, its citizens will be denied the right to buy and eat a compound of skimmed milk and cocoanut fat if it bears the name "Hebe," although it is admittedly wholesome and nutritious. We believe that one of the greatest duties confronting legislators today is that of revising food laws to make them fit the reconstruction period, which will go down in the history of a big part of the world as "The Starvation Period." The decision and the dissenting opinion follows:

### The Decision

Mr. Justice Holmes delivered the opinion of the Court.

This is a bill in equity brought to restrain prosecutions threatened against the plaintiffs and their customers for selling a food product of the plaintiffs called Hebe, the bill being based upon the destruction of the plaintiffs' business which it is alleged will ensue. The prosecutions are threatened mainly or wholly under certain statutes of Ohio which, the plaintiffs argue, do not bear the construction put upon them by the defendants, or, if they do, are bad under the Fourteenth Amendment to the Constitution of the United States and the Commerce Clause. Article I, Section 8. A similar case was heard before three judges. By agreement the evidence on that case was made the evidence in this. The District Judge adopted the opinion of the three and dismissed the bill.

Hebe is skimmed milk condensed by evaporation to which six per cent. of cocoa nut oil is added by a process that combines the two. It is sold in tin cans containing one pound or six ounces of the product and labeled "Hebe A Compound of Evaporated Skimmed Milk and Vegetable Fat Contains 6% Vegetable Fat, 24% Total Solids." with the place of manufacture and address of the Hebe Company. On the side of the label are the words "For Coffee and Cereals For Baking and Cooking." By § 12725 of the General Code of Ohio "Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from . . . unadulterated . . . milk,

# Rules Against Hebe Ohio Statute

## the Opinion of the Majority
## the Product is Wholesome,
## It Can Not Be Marketed

from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent of milk solids in crude milk, twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made", is subject to a fine, and for each subsequent offense to a fine and imprisonment. The first question is whether Hebe falls within these words.

### Hebe Argument

It is argued that, as Hebe is a wholesome or not unwholesome product, the statutes should not be construed to prohibit it if such a construction can be avoided, and that it can be avoided by confining the prohibition to sales of condensed milk as such, under the name of condensed milk, as was held with regard to ice cream in *Hutchinson Ice Cream Company* v. *Iowa*, 242 U. S. 153. But the statute could not direct itself to the product as distinguished from the name more clearly than it does. You are not to make a certain article, whatever you call it, except from certain materials—the object plainly being to secure the presence of the nutritious elements mentioned in the act, and to save the public from the fraudulent substitution of an inferior product that would be hard to detect. *Savage* v. *Jones*, 225 U. S. 501, 524. By § 5778 a food is adulterated if a valuable ingredient has been wholly or in part abstracted from it, and the effect of this provision upon skimmed milk is qualified only by § 12720, which states the stringent terms upon which alone that substance can be sold. It seems entirely clear that condensed skimmed milk is forbidden out and out. But if so the statute cannot be avoided by adding a small amount of cocoa nut oil. We may assume that the product is improved by the addition, but the body of it still is condensed skimmed milk, and this improvement consists merely in making the cheaper and forbidden substance more like the dearer and better one and thus at the same time more available for a fraudulent substitute. It is true that so far as the question of fraud is concerned the label on the plaintiff's cans tells the truth—but the consumer in many cases never sees it. Moreover when the label tells the public to use Hebe for purposes to which condensed milk is applied and states of what Hebe is made, it more than half recognizes the plain fact that Hebe is nothing but condensed milk of a cheaper sort.

We are satisfied that the statute as construed by us is not invalidated by the Fourteenth Amendment. The purposes to secure a certain minimum of nutritive elements and to prevent fraud may be carried out in this way even though condensed skimmed milk and Hebe both should be admitted to be wholesome. The power of the legislature "is not to be denied simply because some innocent articles or transactions may be found within the proscribed class. The inquiry must be whether, considering the end in view, the statute passes the bounds of reason and assumes the character of a merely arbitrary fiat." *Purity Extract & Tonic Co.* v. *Lynch*, 226 U. S. 192, 204. If the character or effect of the article as intended to be used "be debatable, the legislature is entitled to its own judgment, and that judgment is not to be superseded by the verdict of a jury," or, we may add, by the personal opinion of judges, "upon the issue which the legislature has decided." *Price* v. *Illinois*, 238 U. S. 446, 452. *Rast* v. *Van Reman & Lewis Co.*, 240 U. S. 342, 357. The answer to the inquiry is that the provisions are of a kind familiar to legislation and often sustained and that it is impossible for this Court to say that they might not be believed to be necessary in order to accomplish the desired ends. See further *Atlantic Coast Line R. R. Co.* v. *Georgia*, 234 U. S. 280, 288.

With regard to the other objection urged, the statute "was not aimed at interstate commerce but without discrimination sought to promote fair dealing in the described articles of food." *Savage* v. *Jones*, 225 U. S. 501 524. The defendants disclaim any intention to interfere with the sale of the goods in the original packages by the consignee, and if the record is thought to raise a doubt with regard to that it may be met by a modification of the decree so as to leave it tions should be threatened or at- without prejudice in case prosecu- tempted for such sales. Some question was raised as to whether the individual can was not to be regarded as the original package. But it appears that the cans are brought from Wisconsin, where Hebe is manufactured, into Ohio in fibre cases containing forty-eight one-pound cans or ninety-six six-ounce cans. The cases are the original packages so far as the present question is concerned, *Austin* v. *Tennessee*, 179 U. S. 343, although no doubt, as shown by *McDermott* v. *Wisconsin*, 228 U. S. 115, 136, the power of Congress to regulate interstate commerce would extend for some purposes to the cans. The Food and Drugs Act of June 30, 1906, c. 3915, 34 Stat. 768, dealt with in *McDermott* v. *Wisconsin*, does not prevent state regulation of domestic retail sales. *Armour & Co.* v. *North Dakota*, 240 U. S. 510, 517. *Weigle* v. *Curtice Brothers Co.*, decided today. Indirect effects upon interstate commerce do not invalidate the act. *Sligh* v. *Kirkwood*, 237 U. S. 52, 61. *Savage* v. *Jones*, 225 U. S. 501, 525.

Decree affirmed.

### Dissenting Opinion

Mr. Justice Day, with whom concurred Mr. Justice Van Devanter and Mr. Justice Brandeis, gave the dissenting opinion.

The right to prohibit the sale of plaintiff's product in the State of Ohio is mainly rested upon Section 12,725 of the General Code of that State. In the absence of a construction by the Supreme Court of Ohio, we must interpret the statute ourselves. We have been unable to come to the conclusion, reached by the majority of the court, as to the meaning of the law. As the result of this decision is to exclude from sale in the State of Ohio, a food product not of itself harmful, but shown to be wholesome, we shall briefly state the reasons which impel the dissent.

Section 12,725 of the General Code of Ohio reads:

> "Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than

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# Commissioner Weigle Wins Case vs. Curtis Bros. Co.

## Supreme Court Decides That the Shipping Case and Not Each Bottle is the Original Container

The case of George J. Weigle, dairy and food commissioner of the State of Wisconsin against the Curtis Brothers Company of New York, which was appealed a year ago from the U. S. District Court for the Western District of Wisconsin to the United States Supreme Court was decided January 7, the decree of the lower court being reversed. The statement of the case with the decision of the court follows:

Mr. Justice Holmes delivered the opinion of the Court.

This is a bill in equity brought by Curtice Brothers Company, a New York Corporation, to restrain Weigle, the Dairy and Food Commissioner of Wisconsin, from enforcing certain laws of the State, especially Statutes of 1913, Section 4601g. That section makes it unlawful to sell any article of food that contains benzoic acid or benzoates, with qualifications not material here. The plaintiff makes such articles from fruit, and adds benzoate of soda as a preservative. It put them up in glass bottles and jars properly labelled under the Food and Drugs Act (June 30, 1906, c. 3915, 34 Stat. 768) packs the bottle and jars in wooden cases containing a number of the same, and ships the cases from its factory in New York to customers in Wisconsin among others. Of course the single bottles are sold in the retail trade, and their contents are served to guests in restaurants and hotels. The defendant disavowed any contention that the state laws affected or purported to affect sales by the importer in the unbroken wooden packages containing the bottles and the decree treated that subject as taken the end of the journey in which the out of the case. But the bill went far- prayer of the bill. The defendant ap- ther and setting up a decision, incorporated in a regulation under the Food and Drugs Act, that benzoate of soda is not injurious to health and that objection would not be raised to it under the Act if each container should be plainly labelled, contended that under the Food and Drugs Act and the Commerce Clause of the Con- situation, the Wisconsin law was in- a motion to dismiss and the District Court made a decree following the valid even as applied to domestic retail tiff's goods. The defendant stood on tents of single bottles of the plain- sale of the individual bottles when repealed.

The argument in support of the decree contends in various forms that the sale of the individual obttles when removed from the original package after entering the State, still is a part of commerce among the States, since the Act of Congress as to misbranding applies to them. But the Food and Drugs Act does not change or purport to change the moment at which an object ceases to move in interstate commerce. It imposes an obligation to label the bottles severally, although contained in one original package, as of course it may. *Seven Cases of Eckman's Altcrative* v. *United States*, 239 U. S. 510, 515, 516. It provides for seizure and condemnation of misbranded or adulterated articles that have been transported from one State to another, although the transit is at an end, while the articles remain unsold or in original unbroken packages, as again it may. There is no reason why a lien *ex delicto* should be lost by wrong was done. The two things have no relation to eath other. *Hipolite Egg Co.* v. *United States*, 220 U. S. 45, 57, 58. Finally the duty to retain the label upon the single bottles does not disappear at once. For reasons stated in *McDermott* v. *Wisconsin*, 228 U. S. 115, if the State could require the label to be removed while the bottles remained in the importer's hands unsold it could interfere with the means reasonably adopted by Congress to make its regulations obeyed. But all this has nothing to do with the question when interstate commerce is over and the articles carried in it have come under the general power of the State. The law upon that point has undergone no change.

The Food and Drugs Act indicates its intent to respect the recognized line of distinction between domestic and interstate commerce too clearly to need argument or an examination of its language. It naturally would, as the distinction is constitutional. The fact that a food or drug might be condemned by Congress if it passed from State to State, does not carry an immunity of foods or drugs, making the same passage, that it does not condemn. Neither the silence of Congress nor the decisions of officers of the United States have any authority beyond the domain established by the Constitution. *Rast* v. *Van Deman & Lewis Co.*, 240 U. S. 342, 362. When objects of commerce get within the sphere of State legislation the State may exercise its independent judgment and *prohibit* what Congress did not see fit to forbid. When they get within that sphere is determined, as we have said, by the old long-established criteria.

The Food and Drugs Act does not interfere with State regulation of selling at retail. *Armour & Co.* v. *North Dakota*, 240 U. S. 510, 517. *McDermott* v. *Wisconsin*, 228 U. S. 115, 131. Such regulation is not an attempt to supplement the action of Congress in interstate commerce but the exercise of an authority outside of that commerce that always has remained in the States.

## A Statement by Mr. Weigle

The decision recently rendered by the United States Supreme Court in the case of Curtice Brothers Company of Rochester, N. Y. vs. Weigle, regarding the shipment of food products containing benzoate of soda in interstate commerce is a sweeping one; it not only effects the State of Wisconsin, but every state in the Union and is a great victory over the use of chemical preservatives in food products. The opinion clearly sets forth the state's rights in food control.

The effect of the decision on the trade in Wisconsin will be hardly noticeable, inasmuch as we have had a specific law on the statutes since 1909, prohibiting the sale of foods containing benzoate of soda, and the trade generally has been complying with this law. Although I was enjoined two years ago by the Curtice Brothers Company from interfering in the sale of their products containing benzoate of soda, the trade has not taken advantage of the injunction, but has abided by the original benzoate of soda law.

The brief submitted by the Supreme Court goes into the matter of state's rights and of the authority of the Food and Drugs Act. It states among other things that the Food and Drugs Act does not interfere with state regulation of selling at retail and that such state regulation is not an attempt to supplement the action of Congress in interstate commerce.

Signed **Geo. J. Weigle,**
Dairy and Food Commissioner
of Wisconsin.

# State Legislatures Are Now in 1919 Session

## Many Food Laws Will Probably Be Introduced This Year Which Will Require the Careful Consideration of the Business Man

THIS is the open season for legislation and in view of the prevailing agitation against high prices of foodstuffs and the general feeling that readjustments of conditions that influence prices and the sentiment among manufacturers and dealers favoring some method of perpetuation of many of the regulations of the Food Administration which is passing away, there is sure to be many measures introduced in the sessions of the legislatures of each of the states.

Some of these proposed laws will be good and will be welcomed by producer and consumer alike, others will be drawn undoubtedly by legislators who are either not properly informed on the subject about which they wish to legislate or who are simply desirous of impressing their home constituency with their prominence in the law making business and these laws will have to be fought by those who seek to better conditions and do not want more obstacles in the way of their progress.

Whether you are a manufacturer or distributor of foodstuffs, or if you are simply a good citizen you will want to keep informed about these proposed laws and THE AMERICAN FOOD JOURNAL has arranged to publish from month to month a full report on proposed new laws governing the food industry.

The February number of this magazine will contain a full report of these proposed laws and some editorials by Dr. Barnard giving his views, based on twenty years of experience in this field, as to the value of such laws if placed on our statute books.

The fact that you may live in Maine does not or should not make you indifferent about the proposed legislation in California as legislation, like the influenza, is catching and very often a law passed by one state is taken up and passed by the legislature of another state and then, too, the laws of any state are bound to influence to a certain degree the interpretation of certain Federal interstate laws.

This is a matter that should receive the most careful attention of officials, manufacturers, distributors and other citizens.

The Legislatures of the following States will be in session during the year 1919 during the period stated below:

| | | |
|---|---|---|
| Alabama | Jan. 20 | 50 days |
| Arizona | Jan. 13 | 60 days |
| Arkansas | Jan. 13 | 60 days |
| California | Jan. 6 | 60 days |
| Colorado | Jan. 8 | 90 days |
| Connecticut | Jan. 8 | No limit |
| Delaware | Jan. 7 | No limit |
| Florida | Apr. 8 | 60 days |
| Georgia | June 25 | 50 days |
| Idaho | Jan. 6 | 60 days |
| Illinois | Jan. 8 | No limit |
| Indiana | Jan. 13 | 60 days |
| Iowa | Jan. 13 | 60 days |
| Kansas | Jan. 14 | 50 days |
| Maine | Jan. 1 | No limit |
| Massachusetts | Jan. 1 | No limit |
| Michigan | Jan. 1 | No limit |
| Minnesota | Jan. 7 | 90 days |
| Missouri | Jan. 8 | 120 days |
| Montana | Jan. 6 | 60 days |
| Nebraska | Jan. 7 | 60 days |
| Nevada | Jan. 20 | 60 days |
| New Hampshire | Jan. 1 | No limit |
| New Jersey | Jan. 14 | No limit |
| New Mexico | Jan. 14 | 60 days |
| New York | Jan. 8 | No limit |
| North Carolina | Jan. 8 | 60 days |
| North Dakota | Jan. 7 | 60 days |
| Ohio | Jan. 6 | No limit |
| Oklahoma | Jan. 7 | 60 days |
| Oregon | Jan. 13 | 40 days |
| Pennsylvania | Jan. 7 | No limit |
| Rhode Island | Jan. 7 | 60 days |
| South Carolina | Jan. 14 | No limit |
| South Dakota | Jan. 7 | 60 days |
| Tennessee | Jan. 6 | 75 days |
| Texas | Jan. 14 | 90 days |
| Utah | Jan. 13 | 60 days |
| Vermont | Jan. 8 | No limit |
| Washington | Jan. 13 | 60 days |
| West Virginia | Jan. 15 | 45 days |
| Wisconsin | Jan. 15 | No limit |
| Wyoming | Jan. 14 | 40 days |

(The California Legislature meets 30 days, has a recess of 30 days and then reconvenes for 30 days. Bills can be introduced only at the first session.)

# Review of Food Laws Enacted During 1918

## *Congress*

The second session of the 65th Congress convened on December 3, 1917, and adjourned November 21, 1918. The third session is now on.

The following are the laws of interest to members enacted during that session:

Public Act No. 107 provides for the operation of transportation systems while under Federal control.

Public Act No. 109, the Urgent Deficiency Appropriation Act, appropriates funds for the enforcement of the Food Control Act.

Public Act No. 126 is designed to promote export trade (Webb Export Trade Act).

Senate Joint Resolution 17 amends the Federal Constitution by prohibiting the manufacture, sale or transportation of intoxicating liquors for beverage purposes; the resolution has passed Senate and House and has been ratified by 38 states.

Public Act 181, the civil sundry appropriations Act, makes an appropriation for the expenses of the Food Administration and for the purpose of carrying out the provisions of the Food Control Act.

Public Act 185, the Postoffice Appropriations Act, provides, among other things, that to promote the conservation of food products and to facilitate the collection and delivery thereof from producer to consumer and the delivery of articles necessary in the production of such food products, the Postmaster General is authorized to conduct experiments in the operation of motor-vehicle truck routes in the vicinity of such cities of the United States as he may select and under such rules and regulations as he may prescribe. An appropriation is made for this purpose.

Public Act 188, the legislative, executive and judicial expense appropriation Act, makes appropriations for the promotion of foreign and domestic commerce.

Public Act 219, the Agricultural Appropriations Act, makes appropriations, among other things, for the following purposes:

1. For investigating the chemical and physical tests which are applied to American food products in foreign countries and for inspecting the same before shipment when desired by shippers or owners of these products intended for countries where chemical and physical tests are required before the said products are allowed to be sold therein;
2. For investigating the handling, grading, packing, canning, freezing, storing and transportation of fish;
3. For investigating the packing, handling, storing and shipping of oysters and other shell-fish;
4. For carrying into effect the Food and Drugs Act of June 30, 1906;
5. For investigating and developing methods for the manufacture of table syrup.

This act also amends the existing law in relation to the packing and branding of oleomargarine.

Public Act 243, which makes appropriations to enable the Secretary of Agriculture to carry out the provisions of the Food Survey Act of 1917, contains several prohibition provisions as follows:

1. After June 30, 1919, until the conclusion of the present war and thereafter until the termination of demobilization, the date of which shall be determined and proclaimed by the President of the United States, it shall be unlawful to sell for beverage purposes any distilled spirits and during said time no distilled spirits held in bond shall be removed therefrom for beverage purposes except for export.
2. After May 1, 1919, and until the conclusion of the present war and thereafter until the termination of demobilization, the date of which shall be determined and proclaimed by the President of the United States, no grains, cereals, fruit or other food product shall be used in the manufacture or production of beer, wine or other intoxicating malt or vinous liquor for beverage purposes.
3. After June 30, 1919, until the conclusion of the present war and thereafter until the termination of demobilization, the date of which shall be determined andp roclaimed by the President of the United States, no beer, wine or other intoxicating malt or vinous liquor shall be sold for beverages except for export.
4. After the approval of this Act (November 21, 1918) no distilled, malt, vinous or other intoxicating liquors shall be imported into the United States during the continuance of the present war and period of demobilization; provided that this provision against importation shall not apply to shipments en route to the United States at the time of the passage of this Act.

The Act also makes appropriations for gathering authoritative information in connection with the demand for and the production, supply, distribution and utilization of food.

The third session of the 65th Congress commenced on December 2, 1918.

## ARIZONA—(Special Session)

House joint resolution 3 relates to conservation of food.

Chapter 6 makes it unlawful to transport intra-state intoxicating liquors or beverages.

Chapter 8 regulates the production, sale and shipment of milk, cream, butter and cheese.

Senate joint resolution No. 1 ratifies the proposed prohibition amendment to the United States constitution.

## CONNECTICUT—(Special Session)

No food legislation of interest was enacted.

## DELAWARE—(Special Session)

The proposed prohibition amendment to the United States constitution was ratified.

A law was enacted creating the State Council of Defense, one of whose duties is to take steps for the development of those resources of the state from which will be derived the supplies of food and other commodities upon which the conduct of war makes a special drain.

## FLORIDA—(Special Session)

A "bone-dry" prohibition law which went into operation January 1, 1919, was passed, prohibiting the manufacture, sale, barter, or exchange of, the possession of, and the transportation into Florida, of alcoholic and other intoxicating liquors, and the sale, dispensing, and giving away of Jamaica Ginger, except under certain conditions. The Act exempts, however, alcohol for medical, scientific, and mechanical purposes, and wine for sacramental purposes; and exempts also bona fide flavoring extracts, soda waater flavors, perfumes, toilet preparations, and patent and proprietary medicines when manufactured and sold in accordance with the Pure Food Laws of Florida and the National Pure Food and Drugs Act of 1906. The Act also provides for punishment of violations thereof and for other contingencies.

Chapter 7735 is an Act divesting any person, persons, firm, or corporation of any property right in certain intoxicating liquors held in custody of the sheriffs or certain other officers and providing for its destruction and the disposition of containers and for giving notice of the sale of such containers.

The prohibition amendment to the United States constitution was ratified.

## GEORGIA

Act 515 imposes annual taxes on the following described businesses, among others:

Persons selling carbonated waters and syrups;

Trading stamp companies and dealers.

Act 364 prescribes the form of label for insect poisons sold by merchants.

Joint resolution No. 34 ratifies the prohibition amendment to the United States constitution.

## KENTUCKY

Chapter 6 prohibits the shipment and delivery of any spirituous, vinous, malt or other intoxicating liquor, regardless of the name by which it may be called in local option territory, and prohibits any person in such territory from receiving such liquors, and forbids the soliciting of orders for such liquors in said territory.

Chapter 58 regulates the sale of wood alcohol and forbids any person to sell, offer for sale, give away, deal in or supply, or have in his possession with intent to sell, offer for sale, give away, deal in or supply any article of food or drink or any medicinal or toilet preparation intended for human use internally or externally, which contains any methyl alcohol, otherwise known as wood alcohol or wood naphtha, either crude or refined, under or by whatever name or trade-mark the same may be called or known, or which contains denatured alcohol containing methyl or wood alcohol.

Chapter 63 submits to voters a proposal to amend the state constitution by prohibiting, after June 30, 1920, the manufacture, sale or transportation of spirituous, vinous, malt or other intoxicating liquors, except for sacramental, medicinal, scientific or mechanical purposes.

Chapter 65 amends the present Food and Drugs Law. The State Board of Health is to establish and maintain a bureau of pure food and drugs. It is made the duty of the State Board of Health (instead of the Director of the Kentucky Agricultural Experiment Station) to make examinations and analyses of food and to adopt and fix standards.

Chapter 147 is an act to prevent fraudulent advertising.

House joint resolution No. 2 was adopted ratifying the proposed prohibition amendment to the United States constitution.

### MARYLAND

Chapter 200 regulates the sale of agricultural seeds.

Chapter 284 authorizes the creation of a state debt to an aggregate amount not exceeding the sum of $1,000,000 and for the issue and sale of certificates evidencing the same, the proceeds to be used for the purpose, among others, of promoting or aiding in the conservation of food.

Chapter 315 provides for the registration, sale, inspection, and analysis of commercial fertilizers.

Joint resolution No. 1 ratifies the proposed prohibition amendment to the United States constitution.

### MASSACHUSETTS

Chapter 137, General Acts, provides for the examination of samples of vinegar and where adulteration or misbranding shall appear the State Department of Health or the local board of health, as the case may be, shall not be required to cause formal complaint to be entered at once, but shall grant the opportunity of a hearing.

Chapter 145, General Acts, amends the existing law relating to vinegar by striking out the provisions applying specifically to cider vinegar.

Chapter 169, General Acts, amends the existing law relating to the grading and branding of apples.

Chapter 218, General Acts, changes the official designation of the Commissioner of Weights and Measures to Commissioner of Standards.

Chapter 220, General Acts, amends the law relative to the sale of commercial fertilizers.

Chapter 257, General Acts, amends the laws relating to:

The measurement of chestnuts, walnuts, and berries;

Contracts for the sale and delivery at wholesale of corn, wheat, rye, oats, barley, buckwheat, cracked corn, cornmeal, feed, beans, or peas;

Weights and measures generally;

Labels, trade-marks;

Bills of lading.

Chapter 63, Special Acts, authorizes a sum not exceeding $200,000 to be expended under the direction of the Governor and council for the purpose of promoting and stimulating production and conservation of food products and for like purposes growing out of the present war emergency.

Chapter 139, Special Acts, authorizes the expenditure of $100,000 for the purpose of promoting and stimulating the production and conservation of food products.

The prohibition amendment to the United States constitution was ratified.

### MISSISSIPPI

Chapter 107 amends section 6, Chap. 97, Acts of 1912, changing the privilege tax on near beer and other drinks from $500 to $25 for the retail dealers, and imposing a tax of $250 on wholesale dealers.

Chapter 189 makes it unlawful to transport, ship or deliver, whether from without or within the state, any spirituous, vinous, malt, fermented, or other intoxicating liquors, or to receive, have, control, or possess intoxicating liquors, etc.

Chapter 191 is an Act to regulate dairies, and also relates to the manufacture and sale of substitutes for butter and cheese.

Chapter 501 ratifies the prohibition amendment to the United States constitution.

### NEBRASKA—(Special Session)

Chapter 5 defines the crime of sedition as including: Concealing, hoarding or destroying any food or food supplies of a character declared by the President of the United States, or any duly authorized representative of the President of the United States, as necessary for the use of the armed forces of the United States, or the forces of the allies of the United States.

### NEW JERSEY

Chapter 9 relates to the renewal of license required in the business of making or manufacturing biscuits, pies, bread, crackers, cakes, macaroni and other foodstuffs.

Chapter 11 amends the weights and measures law by fixing the pounds per bushel of various commodities.

Chapter 13 amends Section 13 of Chapter 101 of the Laws of 1916, regulating the cold storage of food by providing for the recovery of penalties for violation of any provision of the act.

Chapter 39 authorizes the Department of Health to make analyses of water, food, drugs, pathological materials and similar substances for persons, corporations and institutions.

Chapter 47 requires the publication of the tolerances and exemptions provided for in Chapter 181 of the Laws of 1916 (which requires the net quantity of contents to be marked on the outside of packages), at the end of the Session Laws of 1918, and provides that when so published they shall have the same force and effect as if they had been published as provided in Chapter 181 of the Laws of 1916.

Chapter 53 empowers every municipality to purchase either within or without the state, foods and fuel, and to sell the same at wholesale or retail. This law is in force only during the war and until six months thereafter.

Chapter 252 amends the law of 1917 in reference to the power of municipalities to regulate stores for the sale of groceries, etc.

### NEW YORK

Chapter 126 amends the Agricultural Law in relation to the branding of cheese.

Chapter 223 amends the Farms and Market Law in relation to prosecutions of violations of the Agricultural Law.

Chapter 384 amends the Food Control Act of 1917 by providing that the Food Commission may, in the event of an emergency, purchase necessaries and sell the same in such manner and through such agencies and at such prices as it may determine. The commission may also, in case of emergency, fix the retail and wholesale price of necessaries throughout the state, provided that rules made by the commission concerning the prices of necessities shall not conflict with any rule or ruling of a competent federal authority on the same subject.

Chapter 433 amends the Public Health Law by extending from 10 to 12 calendar months the maximum cold storage period.

### NORTH DAKOTA—(Special Session)

Chapter 5 creates the North Dakota Council of Defense, which shall cooperate with the North Dakota Federal Fuel and Food Administrators in stimulating an increased production of food and economy and preservation thereof. The council is also empowered to make and promulgate rules and regulations to assist the Federal Government in carrying out and enforcing its laws and regulations relative to the conduct of the war.

Chapter 11 ratifies the proposed prohibition amendment to the United States constitution.

Chapter 14 creates a uniform State grade of wheat, oats, barley, flax and all other grains and agricultural products, also for flour, meal and products made therefrom; establishes the office of State Inspector of Grades, Weights and Measures, and provides for State aid for marketing facilities and the establishment of State-owned marketing places.

### SOUTH CAROLINA

Act. No. 400 ratifies the proposed prohibition amendment to the United States constitution.

Act No. 423 fixes the weight of a bushel of cornmeal at 48 pounds.

Act No. 443 permits the manufacture of ethyl and methyl alcohol from molasses.

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# DR. BARNARD'S VIEWS OF THE FOOD FIELD

## Have We Gone Too Fast in Regulating Cold Storage

MUCH legislation comes, not because it is necessary, but because the legislator thinks he sees an opportunity to give the public something which it will appreciate and therefore rise up and call him blessed.

Many pure food laws have been passed years before they were really demanded, and many laws have been demanded that were quite unnecessary. Cold storage legislation was enacted because the people wanted it, or at least thought they needed it, to stop gambling in foodstuffs and the control of prices by cold storage corners, and also because they had been led to believe by sensational stories that much food was sold from the cold storage warehouses that was so old it was wholly unfit to eat. As a matter of fact, the laws of business regulate the storage of food as they do every other movement of commodities. Storage is necessary to carry surplus stocks until the next season of scarcity. To continue to carry food in storage until the next season of plenty and to pay warehouse charges, interest on investments and insurance in order to do that foolish thing is a business impossibility. It may have been done—occasionally, but the man who tried it once never tried it again. He couldn't afford to.

In writing cold storage bills, the legislature usually fixes short time limits for storage. He does this because he thinks that is the way to keep food from spoiling. He doesn't realize that to place a three months' limit on fish or eggs would very largely defeat the purpose of storage. He doesn't know that proper storage is not bound by temporal limits. As a matter of fact, some foods properly handled improve in storage. This is true of cheese, and, within limits, of meats. It is not true of eggs. Fruit keeps perfectly in storage for a long time; then it begins to spoil. It is not necessary to fix any time limit on the storage of apples. That is fixed by the nature of the fruit more definitely than it can ever be fixed in legislative halls. I am a staunch advocate of cold storage. I know of no other way by which surplus food may be kept good until it is needed by a hungry people.

In order that careless handling at the warehouse and reckless storage by the producer may not cause wastage and heavy losses, cold storage laws are perhaps helpful. They are also helpful in preventing reentry of food which is withdrawn for sale again into storage, a practice which is almost sure to result in spoiled food and loss. But the more I study cold storage and storage laws the more convinced I am that it is not necessary to say that foods shall be legal if stored for nine months and illegal after storage for nine months and one day. I do not believe limits of nine, ten or twelve months are an essential part to good cold storage laws. I do not think the public will be the better served because such limits are fixed. The public needs only to know that the food taken from storage is sound and of good quality, and also that it is cold stored food. These things they are entitled to know.

Dr. Barnard Will Review the Canners Convention in the February Issue of The American Food Journal.

## Dating Canned Food Unnecessary

Well-meaning solons often perpetrate hideous jokes under the guise of helpful legislation. The legislature is called on to cure all economic evils. The unfortunate thing is that few of our representatives are experts on economic problems.

Legislatures are now in session in many of the states. Before the sessions are ended and business gets away from the fear of ill-advised legislation, some well intentioned legislator is almost certain to introduce a bill requiring all canned foods to show the year, month and day of packing. This sort of legislation, although designed for the protection of the public health under the impression that canned food soon becomes unfit for use, is foolish because that impression isn't true.

Canned goods are good goods long after they come from the process kettle. The length of time they remain good is not measured by days: it is determined only by the condition of the can.

When tin pits and iron rusts, a leaky can may spoil its contents, but so long as the sterile condition of the food in the package holds the beans or peas, corn, tomatoes or soup is good.

There is some deterioration, of course, but the loss of flavor is not determined so much by the age of the goods as by their kind, and the law which might have some slight excuse for passage in the case of one variety of canned food would be utterly without value or reason in another case.

I have eaten corn taken from a can after twenty-eight years in first-class condition. I have opened canned fruits put up so long that their history was lost, yet they were still real food.

The canner is a modern Joseph. He puts the surplus from fields and orchard in the most successful package ever devised, and whether lack of demand, market conditions or accident compels them to remain unopened for one year or five, when the cans are opened they are sure to deliver a well-flavored, satisfying, wholly wholesome food.

Legislators who attempt to regulate the food supply may well measure the character of the information upon which they base their argument. Food legislation in particular can only be of real service when it is backed by scientific inquiry and facts.

## New Food Flavors that Attract

When we go to market we buy flavor and attractiveness quite as truly as we buy food. Any new food or vegetable interests us by its flavor, not because it is rich in protein or carbohydrates. Even now, when war-time prices still prevail, the food necessary for one person costs only ten cents a day. Most of the additional expense goes chiefly for flavor. Butter sells at a higher price than oleomargarine because it tastes better. Maple syrup brings twice the price of other syrups just as full of food value because some of us were fortunate enough in our youth to learn maple flavor in the woods. The difference between ten cent and dollarapound candies is a difference largely determined by flavor.

The manufacturer looking for something different is not neglecting the value of better flavors. He has a wide opportunity for his inventive genius in developing new foods which will appeal because they are palatable. The variety of flavors which may be obtained from the volatile oils of herbs and seeds and flavors or which may be made synthetically in the laboratory is almost infinite. We now use but few, vanilla and lemon extracts for our cakes, spice oils in our condiments, dill in our pickles, garlic, leek and chives in our salads, the perfume of brandy in mince pies and plum puddings.

We have been living on simple food and substitutes for the past two years, partly because we were too much interested in the war to think of the table and partly because the use of substitutes freed for export the staples so necessary for our soldiers and suffering allies. Conditions are different today. Individual desires are no longer suppressed. It has been unpatriotic to order an attractive dinner. Now the careful selection of food will again be an object in life.

### THE UNIFORMITY IN FOOD PRODUCTS

The reason why bakers' bread is beating the home made product is its uniform character. The loaf is always brown crusted, it is always even flavored. When you get your usual loaf you know before you cut into it that it will be just like the loaf you sliced yesterday. The successful packer of beans tries to make every can just like those which built up his reputation. He knows that constant good quality holds his customers. Certain brands of ham have been popular for forty years because they were dependable. The hams are selected, cured, pickled, drained, soaked and smoked with the sole purpose of making them just like those they have shipped out in other seasons.

Butter used to be a farm made food, but two batches of butter never tasted alike. It was not possible to make uniform butter on the farm. Today butter is made in large factories by experts who use laboratory methods in their work. They churn under fixed conditions of temperature. They work the butter until its texture is the right grain. They salt it until they satisfy their customers' demands. They use uniform packages, and they please.

The grocer who experiments with brands and who changes from one to another with the arrival of every salesman can never hope to build up a permanent business. The jobber who puts out his own brands will have little call for his special brand unless he learns how to select season after season goods which are uniform in quality and flavor with those which usually bear his brand.

I visited a wholesale grocer one day and found him busily engaged in cutting open cans of peaches and emptying them into small dishes. I asked him why he was cutting so many cans. He told me he was trying to find a pack of peaches that was good enough to go out under his brand. Then I knew why year after year his canned goods grew in popularity, and why among the many successful grocers in his territory he surpassed them all. He knew the value of uniformity.

The possibilities of blending are developing new flavors in the manufacture of new condiments, new salad dressings, new accessories to the table, and the enterprising manufacturer who breaks away from established routine and gives the public something different and something new will build business for himself and stimulate many a jaded appetite.

## A Good Example of Bad Advertising

> **"A prominent provision merchant advances the theory that the world-wide influenza is due to malnutrition through the use of substitutes. He claims that since it is a medical fact that damaged corn, as a human food, is the cause of Pellegra, one is justified in assuming that there may be some connection between the use of corn and the mysterious plague, especially as the quality of the 1917 crop was the worst ever known."**—*Clipping from an advertisement sent out by a prominent St. Louis grain commission firm.*

Every influenza sufferer has his own idea as to the cause of the disease and the best method to cure it. The fact that physicians are still in the dark, both as to the cause and the treatment, has not discouraged the layman from entering into a field which is wholly scientific. Even the grain dealers have their theories. A prominent provision merchant advances the theory that the world-wide influenza is due to malnutrition through the use of substitutes. He claims that since it is a medical fact that damaged corn, as a human food, is the cause of Pellegra, one is justified in assuming that there may be some connection between the use of corn and the mysterious plague, especially as the quality of the 1917 crop was the worst ever known.

There is only one thing wrong with the theory and that is that it isn't so. In the first place, damaged corn is not the cause of Pellegra. There was a time when, lacking a better explanation, physicians endeavored to find some connection between the condition of corn and Pellegra, but we now know that the disease is one of malnutrition due, not to bad corn, but to the continued use of a single article of diet which does not contain all the necessary food elements. In the South where Pellegra is prevalent the poorer classes have lived very largely on corn. By increasing the variety of foods used, although corn still remains the chief food, Pellegra is prevented.

Another fallacy in the theory of the provision merchant who leaves his own useful domain to enter that of a physician and nutrition expert,

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# FOOD NEWS FROM WASHINGTON

## Joint Standards Committee Holds Hearing on Oleomargarine

THE Joint Committee on Definitions and Standards on December 4th, 1918, held a hearing in Washington, D. C., in the matter of a definition and standard for oleomargarine. Representatives both of the oleomargarine and butter industries were present and gave their views on the subject.

A surprising unanimity of opinion was found to exist between the two industries in that both recognized that the law definitely fixed the definition of oleomargarine, and that if any changes were desirable there would first have to be legislative action.

Mr. George P. McCabe, representing the majority of the oleomargarine manufacturers of the country, first brought this point out by stating that the committee would experience little difficulty in fixing a definition for oleomargarine, for the reason that it is already upon the statute books and that of course the committee would have no authority to change that without an act of Congress. Mr. McCabe then read from the Act of August 2, 1886, the sections defining butter and oleomargarine, which, for the benefit of our readers, we quote below:

> "That for the purpose of this act the word 'butter' shall be understood to mean the food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring matter.
>
> "That for the purpose of this act certain manufactured substances, certain extracts, and certain mixtures and compounds, including mixtures and compounds with butter, shall be known and designated as 'oleomargarine', namely: all substances heretofore known as oleomargarine, oleo, oleomargarine-oil, butterine, lardine, suine, and neutral; all mixtures and compounds of oleomargarine, oleo, oleomargarine-oil, butterine, lardine, suine, and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard, lard-oil, vegetable oil, annotto, and other coloring matter, intestinal fat, and offal fat made in imitation or semblance of butter, or when so made, calculated, or intended to be sold as butter or for butter."

The attention of the committee was called to the fact that the definition of oleomargarine (differing from that of butter, which is an exclusive definition), is an inclusive definition, including everything that is made from fatty substances which is made in semblance of butter and which is intended to be sold as butter. Particular attention was directed to the fact that under the law, if any of those substances are mixed with butter in any quantity, the resulting product must be marked "oleomargarine."

The attention of the committee was also called to the fact that the law specifically provides for the coloring of both butter and oleomargarine.

So far as a fat or moisture standard for oleomargarine is concerned, Mr. McCabe stated that the manufacturers whom he represented would be willing to accept whatever standard the committee might establish for butter. Inasmuch as oleomargarine is a substitute for butter, he considered that this would be fair.

It will be remembered that the committee has for the past year or more been holding hearings on the matter of a definition and a standard for butter, and undoubtedly the committee will be ready to report on this subject before long.

Mr. William T. Creasy, on behalf of the National Dairy Union, presented the views of the dairy interests on a standard for oleomargarine.

Mr. Creasy stated that oleomargarine should conform to certain standards such as were required of the manufacturer of butter; that no butter or coloring matter to imitate butter should be used in the manufacture of oleomargarine. He made the usual charges of the dairy interests against the oleomargarine industry. He recommended a measurement for color in oleomargarine which he stated had been worked out by the Bureau of Standards for the National Dairy Union. This we understand would require a practically white product. Mr. Creasy closed by asking the committee to recommend such legislation as is necessary to bring about the results desired by his association.

Dr. Alsberg, the chairman of the committee, then called attention to the fact that it was beyond the powers of the committee under the Food and Drugs Act, even if there were no definition in the law, to exclude butter from preparations such as oleomargarine.

In answer to Mr. Creasy's statement, Mr. McCabe stated that the manufacturers of oleomargarine rely upon the law as it stands at present, and which allows color in both butter and oleomargarine.

It seemed to be the consensus of opinion that the same standard as to fat and moisture should be adopted for oleomargarine of vegetable and animal origin.

## License Requirement Ended

By proclamation effective January 10, 1919, the President of the United States, in accordance with the policy of releasing trades from the restraints of war legislation as rapidly as practicable, has withdrawn the requirement of licenses under the Food Control Act for all persons engaged in the importation, manufacture, storage and distribution of all commodities heretofore required to be licensed under the direction of the Food Administration, except in the following cases:

All persons heretofore required to be licensed engaged in importing, manufacturing or distributing wheat, corn, oats, rye, barley, fresh, canned or cured beef, pork or mutton, copra, palm kernel, peanuts, cottonseed, and cottonseed products, butter, cheese, eggs, sugar, near-bear and other similar cereal beverages, oelomargarine and butter substitutes, all animal or vegetable fats and oils. All persons heretofore required to be licensed engaged in importing or manufacturing wheat flour and wheat mill feeds, rye flour, barley flour, rice and rice flour, oat meal, rolled oats and oat flour, corn grits, corn meal, hominy, corn flour, starch from corn, corn syrup, glucose and raw corn flakes. Cold storage warehousemen, elevators, and warehouses storing wheat, corn, oats, rye, rice, barley. All salt water fishermen licensed by proclamation of January 10, 1918, all persons heretofore required to be licensed engaged in the business of malting barley or other grains or in the business of distributing malt, all persons heretofore required to be licensed engaged in business as manufacturers of fermented beverages containing less than one-half of one per cent of alcohol.

It is not necessary for licensees to send to Washington licenses cancelled or modified by this proclamation.

## Sugar Case Decided

Attorney General Gregory has rendered an opinion sustaining the validity of the contract between the Sugar Equalization Board and the sugar refineries.

In the concluding paragraph of his opinion Attorney General Gregory summarizes the basis of his opinion as follows:

"The immediate purpose of the agreement was thus to give effect to a plan formulated by the Food Administration to assure an adequate supply and prevent scarcity of a necessary of life—one of the principal objects of the Food Control Act as declared in section 1. I have no difficulty in saying that in my opinion the agreement bears a clear and substantial relation to that object and also to the further object expressed in section 1 of establishing and maintaining governmental control of necessaries during the war; and that therefore it is authorized by the Food Control Act and is not prohibited by the Sherman Act."

## Food Conditions Abroad

Herbert Hoover, United States Food Administrator and Director General of European relief, has sent to the Food Administration in Washington a cable message giving details of the food conditions in the countries so far investigated by the American staff under the direction of Dr. Alonzo Taylor, in connection with Allied commissions. These surveys disclose that meats, fats and milk are so short in many regions that the health of the people is very much impaired, mortality among children is appalling and there is a constant menace through the threatened spread of Bolshevism, especially in the cities.

The investigations so far carried through indicate that the total amount of food needed by the countries under consideration will amount to about 1,400,000 tons to take them through until the next harvest, costing in the neighborhood of $350,000,000 delivered.

In his cable Mr. Hoover says:

"The general situation in the areas covered by recent surveys is that their animals are largely reduced; their crops were far below normal on account of man and animal shortage, ravages of war, and climatic conditions. The surplus harvest above absolute needs is now rapidly approaching exhaustion, and consequently the towns and cities are in a dangerous situation.

"Our reports show, specifically, as follows:

"Finland—The food is practically exhausted in the cities. While many of the peasants have some bread, other sections are mixing large amounts of straw. They are exhausted of fats, meats and sugar, and need help to prevent renewed rise of Bolshevism.

"Baltic States—The food may last one or two months on a much reduced scale. They sent a deputation to our minister at Stockholm imploring food.

"Serbia—The town bread ration is down to three ounces daily in the north, not accessible from Salonika. In the south, where accessible, the British are furnishing food to the civil population. We are trying to get food in from the Adriatic.

"Jugo Slavia—The bread ration in many towns is three or four ounces. All classes are short of fats, milk and meat.

"Vienna—Except for supplies furnished by the Italians and Swiss, their present bread ration of six ounces per diem would disappear. There is much illness from the shortage of fats, the ration being one and one-half ounces per week. There are no coffee, sugar or eggs and practically no meat.

"Tyrol—The people are being fed by Swiss charity.

"Poland—The peasants probably have enough to get through. The mortality in cities, particularly among children, is appalling for lack of fats, milk, meat and bread. The situation in bread will be worse in two months.

"Roumania—The bread supply for the entire people is estimated to last another thirty days. They are short of fats and milk. The last harvest was sixty per cent a failure.

"Bulgaria—The harvest was also a failure here. There are supplies available for probably two or three months.

"Armenia is already starving.

"Czecho Slovakia—There is large suffering on account of lack of fats and milk. They have bread for two or three months and sugar for six months.

"We have each country under investigation as to the total amounts required to barely sustain life and their resources to pay. The preliminary investigation by Taylor and his staff in connection with Allied staffs shows the total of the above areas will require about 1,400,000 tons of imported food to get through until next harvest, costing say $350,000,000 delivered."

## Childs Restaurant Report

THE United States Food Administration has received a report from the accountants who at the request of the Childs Company investigated for it the books of the Company with regard to its profits for the years 1913 to 1917 inclusive, and for the first ten months of 1918. The Food Administration makes public the signficant figures in that report.

The accountants in their report point out that the Childs Company maintains uniform prices at all its restaurants in various parts of the country, and that prices for dishes are based on scientific computations which are made possible by its large experience, and by the use of tabulating machines, and the employment of actuaries.

The percentages of profits and accountants present are based on the books of all the eating places in the Childs system.

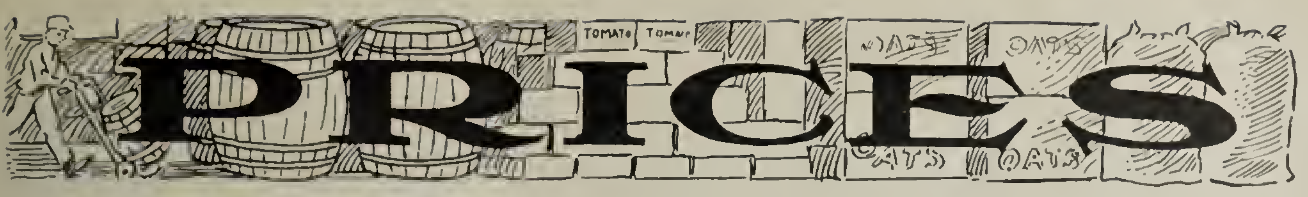
The net profits on each meal, after deducting administration and general expenses and depreciation, were as follows:

| | |
|---|---|
| 1913 | 1.88 cents |
| 1914 | 1.34 cents |
| 1915 | 1.20 cents |
| 1916 | 1.84 cents |
| 1917 | 1.78 cents |

The auditor's statement shows that in the year of 1917 Childs served 50,608,463 persons at an average cost per meal of 27.6 cents, making a net profit on the meal of 1.78 cents; that in the they served 40,150,132 meals at an ten months ending September 30, 1918, average cost per person 31.38 cents.

## FEBRUARY

| Average Price per Pound | Average Price per 100 Calories | | Lima, Ohio (Typical Small Town) | Buffalo, N. Y. | Trenton, N. J. | Providence, R. I. | Concord, N. H. | Boston, Mass. | Pittsburgh, Pa. | Philadelphia, Pa. | Washington, D. C. | Cleveland, Ohio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CEREAL PRODUCTS— | | | | | | | | | | |
| 6.0 | .36 | Wheat flour, 49-lb. bag | $3.15 | $3.10 | $3.00 | $3.00 | $3.40 | $3.43 | $3.00 | $3.25 | $3.00 | $3.30 |
| 6.6 | .41 | Rye flour, standard, 24½-lb. bag | 1.65 | 1.76 | 2.20 | 1.45 | 1.75 | 1.76 | .. | 1.80 | 1.25 | .. |
| 7.0 | .43 | Graham flour, 10-lb. bag | .70 | .70 | .90 | .70 | .75 | .70 | .70 | .80 | .75 | .50 |
| 11.0 | .67 | Cornstarch, per lb | .12½ | .10 | .11 | .12 | .12 | .10 | .09 | .10 | .15 | .10 |
| 5.8 | .36 | Corn flour, 5-lb. bag | .35 | .35 | .30 | .30 | .30 | .40 | .07 | .. | .35 | .. |
| 6.0 | .37 | Cornmeal, per lb | .06 | .07 | .06 | .06 | .06 | .06 | .06 | .07 | .06 | .07 |
| 7.0 | .42 | Barley flour, per lb | .07 | .07 | .07 | .06 | .08 | .06 | .. | .. | .07 | .. |
| 9.0 | .49 | Oatmeal, per lb | .12 | .07 | .08 | .08 | .08 | .07 | .09 | .. | .07 | .08 |
| 8.0 | .44 | Oats, rolled, bulk, per lb | .09 | .06½ | .08 | .. | .08 | .07 | .07 | .08 | .07 | .08 |
| 13.0 | .79 | Rice flour, per lb | .15 | .20 | .15 | .12 | .17 | .13 | .15 | .. | .13 | .. |
| 11.0 | .69 | Buckwheat flour, per lb | .10 | .09 | .10 | .09 | .12 | .11 | .11 | .. | .09 | .10 |
| 8.0 | .49 | Hominy grits, per lb | .12 | .10 | .08 | .07 | .10 | .05 | .07 | .08 | .07 | .. |
| 10.0 | .55 | Quaker Oats, 1 lb. 4 oz | .13 | .12 | .11 | .10 | .12 | .11 | .13 | .14 | .15 | .15 |
| 14.0 | .88 | Rice, fancy head, per lb | .15 | .15 | .15 | .14 | .15 | .14 | .13 | .16 | .15 | .15 |
| 13.0 | .80 | Barley, pearled, per lb | .15 | .12 | .08 | .07 | .15 | .08 | .08 | .08 | .12 | .10 |
| 10.0 | .84 | Bread, per lb | .10 | .10 | .09 | .09 | .10 | .07½ | .09 | .09 | .08 | .10 |
| 23.0 | 1.21 | Crackers, graham, per lb | .23 | .22 | .22 | .. | .28 | .22 | .23 | .. | .30 | .22 |
| 23.0 | 1.19 | Crackers, oatmeal, per lb | .23 | .22 | .22 | .. | .28 | .24 | .. | .. | .30 | .22 |
| 16.0 | .98 | Macaroni, per lb | .15 | .14 | .14 | .15 | .15 | .15 | .15 | .16 | .75 | .15 |
| | | SUGAR AND SYRUP— | | | | | | | | | | |
| 11.0 | .60 | Granulated sugar, per lb | .11 | .11 | .11 | .10 | .11 | .10 | .11 | .10½ | .12 | .11 |
| 8.4 | .58 | Corn syrup, 10-lb. pail | .90 | .75 | .75 | .90 | .. | .. | .75 | .95 | .85 | .90 |
| 41.0 | 2.77 | Comb honey, per lb | .45 | .40 | .48 | .50 | .50 | .38 | .40 | .50 | .35 | .50 |
| | | MISCELLANEOUS— | | | | | | | | | | |
| 31.0 | 1.37 | Cocoa, bulk, per lb | .25 | .25 | .30 | .25 | .35 | .25 | .25 | .35 | .. | .30 |
| 51.0 | 8.50 | Eggs, fresh gathered, firsts, per doz | .68 | .90 | .95 | .75 | .95 | .80 | .85 | .80 | .85 | .70 |
| 7.0 | 2.25 | Milk, per qt | .15 | .16 | .14 | .18 | .14 | .16 | .16 | .14 | .17 | .15 |
| 42.0 | 2.01 | Cheese, American, cheddar, per lb | .45 | .40 | .38 | .35 | .38 | .36 | .45 | .35 | .45 | .40 |
| | | FATS— | | | | | | | | | | |
| 61.0 | 2.57 | Bacon, sliced, per lb | .60 | .50 | .65 | .55 | .60 | .55 | .55 | .60 | .53 | .52 |
| 73.0 | 2.09 | Creamery butter, fancy, per lb | .76 | .78 | .80 | .67 | .75 | .65 | .67 | .82 | .80 | .75 |
| 34.0 | .83 | Pure leaf Lard, per lb | .35 | .35 | .34 | .34 | .35 | .31 | .36 | .35 | .35 | .33 |
| 38.0 | 1.11 | Oleomargarine, uncolored, per lb | .38 | .40 | .36 | .35 | .40 | .36 | .32 | .38 | .32 | .40 |
| 36.0 | 1.02 | Nut margarine, uncolored, per lb | .37 | .35 | .35 | .33 | .40 | .34 | .35 | .. | .32 | .34 |
| 100.0 | 2.50 | Italian or Spanish olive oil, per qt. tin | 2.25 | 2.25 | 2.10 | .. | 2.50 | 2.00 | 2.00 | 2.50 | 2.00 | 2.00 |
| 37.0 | .92 | Cottonseed oil, per qt. tin | .85 | .60 | .80 | .. | .90 | .. | .70 | .75 | .75 | .. |
| 37.0 | .92 | Corn oil, per qt. tin | .90 | .75 | .75 | .70 | .75 | .79 | .80 | .75 | .75 | .75 |
| 48.0 | 1.20 | Peanut oil, per qt. tin | .90 | 1.00 | 1.00 | .40 | .. | .. | .. | .. | 1.25 | .. |
| 29.0 | 1.05 | Peanut butter, per lb | .35 | .25 | .24 | .25 | .30 | .21 | .30 | .35 | .25 | .25 |
| | | FRUITS— | | | | | | | | | | |
| 22.0 | 1.66 | Evaporated apples, per lb | .20 | .20 | .25 | .22 | .30 | .25 | .20 | .30 | .20 | .. |
| 22.0 | 1.83 | Evaporated peaches, per lb | .25 | .30 | .18 | .18 | .32 | .18 | .20 | .25 | .20 | .20 |
| 17.6 | 8.38 | Canned peaches, No. 2½, Stnd., 1 lb. 13 oz | .30 | .37 | .33 | .25 | .40 | .33 | .25 | .35 | .30 | .35 |
| 17.6 | 2.51 | Canned pineapples, No. 2½, Stnd., 1 lb. 14 oz | .40 | .35 | .38 | .28 | .40 | .35 | .35 | .40 | .35 | .40 |
| 17.0 | 1.09 | Raisins, seeded, per pkg., 15 oz | .15 | .15 | .14 | .14 | .17 | .15 | .14 | .15 | .15 | .15 |
| 19.0 | 1.63 | Prunes, medium sized, per lb | .25 | .20 | .22 | .15 | .25 | .13 | .15 | .22 | .15 | .18 |
| | | VEGETABLES— | | | | | | | | | | |
| 3.0 | 1.00 | White potatoes, per lb | .03½ | .03 | .03½ | .02½ | .03 | .03½ | .03 | .03 | .03 | .04 |
| 7.0 | 1.55 | Sweet potatoes, per lb | .10 | .10 | .06 | .07½ | .08 | .09 | .05 | .07 | .05 | .05 |
| 3.0 | 1.50 | Onions, per lb | .05 | .03 | .03 | .03 | \|04 | .03 | .03 | .03 | .03 | .03 |
| 14.0 | .89 | Navy Beans, dry, per lb | .16 | .16 | .14 | .13 | .15 | .13 | .14 | .15 | .15 | .13 |
| 16.0 | 17.77 | String beans, canned, No. 2, Std., 1 lb. 3 oz | .25 | .30 | .18 | .15 | .20 | .16 | .15 | .22 | .15 | .20 |
| 13.5 | 4.06 | Corn, canned, No. 2, Std., 1 lb. 4 oz | .15 | .20 | .18 | .17 | .25 | .18 | .15 | .20 | .20 | .20 |
| 14.3 | 5.72 | Peas, canned, No. 2, St., 1 lb. 4 oz | .18 | .17 | .18 | .15 | .25 | .18 | .18 | .20 | .25 | .22 |
| 15.0 | .93 | Split peas, per lb | .15 | .16 | .14 | .11 | .18 | .12 | .14 | .. | .15 | .18 |
| 26.0 | 1.39 | Peanuts, unshelled, per lb | .. | .40 | .25 | .. | .. | .25 | .. | .28 | .. | .. |
| 9.6 | 9.60 | Tomatoes, canned, No. 3, Std., 2 lb. 1 oz | .25 | .19 | .19 | .20 | .30 | .20 | .23 | .23 | .25 | .25 |
| 4.0 | 3.33 | Cabbage, per lb | .05 | .03 | .03 | .03 | .03 | .04 | .03 | .03 | .02½ | .04 |
| 5.0 | 2.94 | Beets, per lb | .05 | .04 | .04 | .02 | .03 | .04 | .02 | .04 | .03 | .04 |
| 5.0 | 2.77 | Turnips, per lb | .05 | .03 | .04 | .03 | .03 | .03 | .02 | .04 | .03 | .05 |
| | | MEATS AND FISH— | | | | | | | | | | |
| 35.0 | 5.38 | Beef, round steak, per lb | .40 | .40 | .45 | .29 | .45 | .40 | .40 | .50 | .40 | .35 |
| 43.0 | 8.60 | Veal cutlets, per lb | .40 | .40 | .50 | .58 | .55 | .45 | .55 | .50 | .60 | .45 |
| 33.0 | 3.79 | Leg of mutton, per lb | .40 | .. | .. | .23 | .32 | .. | .40 | .35 | .35 | .35 |
| 38.0 | 4.52 | Leg of lamb, per lb | .45 | .35 | .35 | .37 | .32 | .35 | .45 | .45 | .40 | .40 |
| 40.0 | 3.25 | Pork chops, per lb | .40 | .46 | .45 | .32 | .38 | .42 | .45 | .48 | .40 | .40 |
| 57.0 | 3.00 | Ham, sliced, medium fat, per lb | .60 | .65 | .45 | .68 | .50 | .60 | .65 | .70 | .55 | .60 |
| 45.0 | 15.51 | Chickens, broilers, per lb | .40 | .50 | .58 | .53 | .45 | .42 | .42 | .60 | .50 | .. |
| 28.0 | 7.77 | Salt cod, per lb | .30 | .26 | .25 | .16 | .33 | .24 | .25 | .32 | .30 | .30 |
| 27.0 | 2.70 | Salt mackerel, per lb | .30 | .35 | .28 | .23 | .32 | .35 | .32 | .33 | .30 | .35 |
| 35.0 | 7.77 | Halibut, per lb | .35 | .38 | .42 | .33 | .40 | .45 | 35 | \|45 | .50 | .30 |
| 32.0 | 4.86 | Salmon, per lb | .35 | .35 | .42 | .26 | .30 | .35 | .30 | .45 | .40 | .30 |
| 29.0 | 4.39 | Salmon, canned, No. 1, Red Alaska, 1 lb | .30 | .30 | .28 | .28 | .32 | .28 | .30 | .32 | .20 | .32 |
| 41.0 | 11.08 | Trout, per lb | .35 | .25 | .. | .. | .32 | .75 | .30 | .. | .30 | .35 |
| 26.0 | 8.12 | Whitefiesh, per lb | .35 | .25 | .22 | .. | .. | .20 | .30 | .. | .30 | .35 |



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| $3.25 | $3.20 | $3.10 | $3.25 | $3.45 | $3.30 | $2.30 | $3.20 | $2.95 | $2.85 | $2.95 | $2.92 | $3.00 | $3.00 | $3.00 | $2.85 | $3.05 | $3.00 | $3.03 | $3.10 | $3.10 |
| ... | ... | 1.65 | 2.00 | ... | 1.00 | ... | ... | 1.55 | 1.45 | 1.35 | 1.39 | 1.50 | 1.50 | 1.60 | 1.50 | 2.00 | 1.75 | 1.73 | 1.80 | 1.65 |
| .60 | ... | .70 | .70 | ... | .88 | 1.00 | ... | .75 | .65 | .65 | .59 | .65 | .65 | .65 | .75 | .75 | .75 | .63 | .70 | .65 |
| .10 | .12 | .06 | .15 | .15 | .12 | .15 | .15 | .11 | .10 | .10 | .08 | .12½ | .11 | .10 | .12½ | .10 | .12½ | .10½ | .12 | .12 |
| .30 | ... | .06 | .35 | ... | .09 | ... | ... | .35 | .30 | .33 | .30 | .30 | .30 | .06 | .30 | .40 | .37½ | .34 | .37 | .40 |
| .07 | .05½ | .05 | .06 | .05 | .05½ | .06 | .05 | .06 | .05½ | .06 | .06 | .05 | .06 | .06 | .05 | .07½ | .07½ | .06 | .06 | .08 |
| .15 | .07½ | .08 | ... | ... | ... | ... | ... | .06 | .05½ | .08 | .06 | .07 | .06 | .07 | .07 | .07½ | .07 | .07 | .07 | .07 |
| .07 | ... | .08 | .10 | ... | .13 | .15 | .15 | .12 | .10 | .09 | .07 | .08 | .07 | .10 | .12½ | .10 | .09 | .10 | .10 | .10 |
| .07 | ... | .08 | .10 | ... | ... | ... | .15 | .08 | .08 | .09 | .06 | .08 | .07 | .10 | .10 | .05 | .08½ | .08 | .08 | .08 |
| .12½ | .12½ | .15 | .15 | ... | ... | ... | ... | .10 | .12 | .12 | .13 | .12½ | ... | .12 | .11 | .13 | .11 | .11 | .11 | .12 |
| .10 | .11 | .11 | .10 | .15 | ... | .10 | ... | .11 | .10 | .11 | .10 | .12½ | .09 | .10 | .12½ | .13 | .12½ | .12 | .12 | .13 |
| .10 | .07 | ... | .06½ | .06 | .06 | .07 | .15 | .08 | .07 | .08 | .08 | .10 | ... | .07½ | .20 | .08 | .07½ | .06 | .07 | .10 |
| .15 | .13 | .14 | .12 | .15 | ... | .15 | ... | .15 | .13 | .14 | .11 | .15 | .15 | .15 | .15 | .13 | .15 | .13 | .15 | .15 |
| .15 | .14½ | .15 | .15 | .15 | .15 | .12 | .14 | .15 | .13 | .12½ | .14 | .15 | .15 | .12½ | .12½ | .15 | .15 | .12 | .15 | .15 |
| .15 | .14 | .08 | .15 | ... | ... | .15 | .15 | .12 | .12 | .10 | .07 | .15 | .13 | .25 | .20 | .25 | .12½ | .10 | .10 | .12½ |
| .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .08 | .10 | .09 | .10 | .08 | .10 | .10 | .11 | .15 | ... |
| .20 | .25 | .22 | .20 | ... | ... | ... | .20 | .20 | .22 | .23 | .22 | .25 | .24 | .25 | .25 | .15 | .25 | .20 | .25 | .25 |
| .20 | ... | .22 | .20 | ... | ... | ... | .20 | .20 | .22 | .39 | .22 | .25 | ... | .25 | .25 | .15 | .25 | .20 | .25 | .25 |
| .15 | .15 | .14 | .15 | .20 | .09 | .15 | .10 | .15 | .15 | .18 | .12 | .15 | .13 | ... | .15 | .12½ | .12½ | .11 | .12 | .10 |
| .11 | .10½ | .11 | .11 | .11 | .11 | .11 | .11 | .11 | .10½ | .11½ | .10½ | .11 | .11 | .11 | .11 | .11 | .11 | .10 | .10½ | .11 |
| .90 | .85 | .75 | .79 | ... | .92 | .85 | .90 | .95 | .75 | .85 | .70 | .85 | .80 | .80 | .50 | .90 | .90 | .90 | .95 | .95 |
| .45 | ... | .45 | .35 | ... | ... | ... | ... | .35 | .43 | .38 | .40 | .40 | ... | .40 | .50 | .40 | .25 | .36 | .40 | .35 |
| .25 | ... | .30 | ... | ... | ... | .50 | .50 | .30 | .25 | .25 | .30 | .30 | .25 | .45 | .40 | .30 | .30 | .22 | .30 | .30 |
| .70 | .77 | .80 | .75 | .70 | .70 | .70 | .72 | .67 | .75 | .69 | .75 | .70 | .70 | .75 | .75 | .85 | .80 | .68 | .80 | .83 |
| .15 | ... | .14 | .20 | .15 | ... | ... | .18 | .15 | .15 | .14 | .15 | .14 | .13 | .15 | .13 | .18 | .14 | .14 | .14 | .16 |
| .45 | .45 | .45 | .45 | .45 | .44 | .48 | .49 | .40 | .45 | .45 | .36 | .40 | .42 | .40 | .40 | .45 | .37½ | .37 | .40 | .45 |
| .60 | .57 | .55 | .60 | .70 | .70 | .60 | .75 | .65 | .63 | .60 | .55 | .60 | .55 | .55 | .60 | .80 | .65 | .75 | .65 | .65 |
| .77 | .75 | .77 | .75 | .75 | .73 | .75 | .72 | .70 | .75 | .77 | .72 | .71 | .72 | .73 | .69 | .77 | .70 | .70 | .70 | .67 |
| .32 | .34 | .35 | .32½ | .35 | .35 | .35 | .35 | .35 | .33 | .37 | .34 | .30 | .35 | .35 | .30 | .35 | .32½ | .32 | .33 | .35 |
| .37 | .38 | .40 | .35 | .40 | .42 | .39 | .40 | .35 | .38 | .42 | .31 | ... | .40 | .40 | .36 | ... | .40 | .38 | .43 | .43 |
| .35 | .38 | .35 | .35 | ... | ... | ... | .40 | .35 | .37 | .37 | .32 | .35 | .35 | .35 | .36 | ... | .37½ | .38 | .40 | .37 |
| 2.50 | ... | 2.00 | ... | ... | ... | ... | 2.00 | 1.65 | 1.80 | 2.75 | 2.25 | 1.75 | 2.25 | ... | 2.50 | 1.90 | 1.75 | 2.15 | 1.75 | 1.75 |
| .75 | ... | .70 | .75 | .65 | ... | .50 | ... | ... | .70 | ... | .85 | .40 | .65 | ... | 1.00 | ... | .55 | .48 | .50 | .80 |
| .45 | .78 | ... | .75 | ... | ... | ... | .75 | .85 | .70 | .75 | .65 | .40 | .75 | .75 | .70 | .85 | .65 | .46 | .65 | .75 |
| .85 | ... | ... | ... | ... | ... | ... | ... | ... | .75 | ... | .85 | ... | 1.00 | ... | .75 | ... | 1.00 | ... | 1.00 | 1.25 |
| .20 | .38 | .30 | .35 | ... | .30 | .35 | .30 | .30 | .28 | .30 | .25 | .25 | .30 | .25 | .35 | .40 | .30 | .28 | .30 | .23 |
| .18 | .20 | ... | .17½ | .25 | .25 | .25 | .20 | ... | .25 | .18 | .22 | .22 | .30 | ... | .25 | .25 | .20 | .20 | .18 | .20 |
| .25 | .25 | ... | .20 | .25 | .20 | .25 | .20 | .20 | .20 | .18 | .20 | .25 | .25 | .20 | .20 | .20 | .20 | .20 | .18 | .20 |
| .35 | .30 | .35 | .35 | .35 | .34 | .35 | .45 | .35 | .35 | .33 | .27 | .30 | .30 | .30 | .35 | .30 | .25 | .25 | .25 | .25 |
| .30 | .35 | .35 | .35 | .30 | ... | .40 | .35 | .35 | .35 | .35 | .35 | .35 | .35 | .35 | .35 | .35 | .25 | .27 | .25 | .30 |
| .15 | .15 | .15 | .17½ | .25 | .18 | .20 | .15 | .17 | .15 | .15 | .14 | .15 | .16 | .15 | .15 | .20 | .15 | .13 | .12½ | .15 |
| .20 | .20 | .20 | .20 | .20 | .22 | .20 | .15 | .17 | .18 | .18 | .17 | .18 | .17 | .15 | .13 | .15 | .12½ | .18 | .15 | .17½ |
| .04 | .03½ | ... | .03 | .05 | .04 | .03½ | .03 | .02½ | .02½ | .02½ | .02½ | .02 | .03 | .03 | .02 | .03 | .03 | .03 | .03 | .02 |
| .08 | .05 | .07½ | .03½ | .04 | .03 | .03 | .04 | .05 | .08 | .09 | .10 | .10 | .10 | .08 | .06 | .07½ | .05 | .05 | .05 | .07 |
| .04 | .05 | .03 | .04 | .08 | .05 | .04 | .04 | .03 | .04 | .04 | .03 | .03 | .04 | .03½ | .02½ | .04 | .02 | .02 | .02 | .02 |
| .15 | .17 | .12½ | .15 | .20 | .19 | .18 | .14 | .13 | .15 | .14 | .12½ | .12½ | .14 | .12½ | .15 | .15 | .12½ | .12 | .12½ | .15 |
| .18 | .20 | .15 | .20 | .15 | ... | .25 | .20 | .22 | .20 | .17 | .17½ | .20 | .20 | .18 | .20 | .20 | .15 | .13 | .15 | .20 |
| .15 | .19 | .20 | .20 | .25 | .21 | .20 | .20 | .16 | .20 | .17 | .17 | .18 | .18 | .15 | .20 | .20 | .15 | .16 | .17½ | .20 |
| .15 | .19 | .20 | .20 | .25 | .25 | .20 | .20 | .20 | .20 | .17 | .17½ | .18 | .15 | .15 | .25 | .20 | .17½ | .18 | .17½ | .20 |
| .10 | .15 | .15 | .20 | ... | ... | .15 | .25 | ... | .14 | ... | .11 | .15 | .20 | .17½ | .15 | .25 | .12½ | .12 | .12½ | .12½ |
| .40 | ... | ... | ... | .09 | ... | ... | ... | .30 | .25 | ... | .25 | .25 | .25 | .25 | .25 | .15 | .27½ | .18 | .30 | .25 |
| .30 | .20 | .23 | .20 | .25 | .16 | .15 | .25 | .22 | .23 | .27 | .23 | .20 | .20 | .20 | .25 | .20 | .18 | .15 | .20 | .20 |
| .04 | .04½ | .03 | .04 | .07 | ... | .04 | .04 | .03 | .03½ | .04 | .05 | .03 | .10 | .04 | .03 | .07 | .03 | .03 | .03 | .05 |
| .04 | ... | ... | .07½ | ... | ... | ... | ... | .03 | .03 | ... | .05 | .03 | .05 | .04 | .02 | .05 | .03 | .36 | .02½ | .05 |
| .04 | .02 | ... | .04 | ... | ... | .03 | .04 | .02 | .03 | ... | .05 | .03 | .05 | .04 | .02 | .05 | .03 | .36 | .02½ | .05 |
| .35 | .35 | ... | .27½ | .25 | .27 | .40 | .35 | .35 | .40 | .40 | .35 | .30 | ... | .35 | .30 | .35 | .30 | .30 | .30 | .34 |
| .40 | .60 | ... | .35 | .30 | .35 | .35 | .30 | .40 | .40 | .55 | .45 | .35 | ... | .35 | .40 | .45 | .35 | .45 | .35 | .28 |
| .20 | ... | ... | .30 | .50 | .30 | ... | .25 | .30 | .30 | .50 | .30 | ... | ... | ... | .30 | .45 | .30 | ... | .30 | ... |
| .30 | ... | ... | .40 | .50 | .30 | .40 | .35 | .40 | .38 | .50 | .40 | .30 | ... | ... | .35 | ... | .35 | .35 | .35 | .35 |
| .32 | .40 | ... | .40 | .30 | .40 | .50 | .35 | .45 | .42 | .40 | .40 | .40 | ... | .40 | .40 | .50 | .40 | .40 | .42 | .35 |
| .50 | .50 | ... | .60 | .60 | .53 | ... | .55 | .65 | .55 | .60 | .50 | .55 | ... | .55 | .60 | .55 | .60 | .50 | .60 | .60 |
| .30 | .45 | ... | .40 | ... | .35 | ... | .45 | .40 | .38 | .35 | ... | .35 | ... | .35 | .40 | .40 | .60 | .62 | .65 | .55 |
| .35 | .25 | ... | ... | ... | ... | .30 | ... | .35 | .30 | .30 | .30 | .35 | ... | .30 | .30 | .30 | .22½ | .27 | .22 | .20 |
| .25 | .25 | ... | .35 | ... | .25 | .35 | .22 | .30 | .28 | .30 | .15 | .30 | ... | .35 | .30 | .20 | .25 | .10 | .25 | .25 |
| .30 | ... | ... | ... | ... | ... | ... | ... | .30 | .30 | .30 | .32 | .33 | ... | .35 | .35 | ... | .35 | .22 | .35 | .35 |
| .30 | .25 | ... | ... | ... | ... | ... | ... | .30 | .30 | .30 | .30 | .33 | .25 | .35 | .40 | .30 | .32½ | ... | .32 | .28 |
| .25 | .30 | ... | .30 | .25 | ... | .25 | .30 | .30 | .33 | .30 | .28 | .30 | .22 | .40 | .40 | .35 | .35 | .18 | .30 | .30 |
| .30 | ... | ... | .20 | ... | ... | ... | ... | ... | .30 | .30 | .30 | ... | ... | .35 | .35 | .25 | 1.00 | ... | 1.00 | ... |
| .30 | ... | ... | .15 | ... | ... | ... | ... | ... | .30 | .30 | .30 | ... | ... | 40 | .35 | .25 | .05 | ... | .05 | ... |

## The Fishing Industry

(Continued from Page 11)

it "is excellent from an economic standpoint, as there is little waste, being almost entirely free from bone and requiring very little time for cooking. It is suitable for the humblest home on account of its price and for the tables of the millionaire because of its fineness of texture and delicious flavor."

Only recently a market has been created in New York for the grayfish, a fighting fish weighing from five to fifteen pounds and found in large numbers on any of the North Atlantic coasts and far out to sea. This fish is an excellent food when cooked fresh, its liver is valuable for oil, its skin—which feels like emery paper—is used in polishing ivory, fine metal and wooden articles and the eggs which are as large as the yolk of a hen's egg, are used in dressing leather.

Scores of other fish could be mentioned and all should be marketed in one way or another and the public should be taught their value.

And yet, in spite of the work of the government officials and the experiences of the last two years in the food situation a very large part of the public and many of the officials of the fishing industry are still skeptical of the food value of these "new" fish and of the success of marketing them.

Some of the industry officials complain that their efforts to create a steady market for these 'new" fish have met with but poor results. People buy a "new" fish once and then do not ask for it again.

However, their experience in this line is no different than the experience of many other marketers of new foods and only a persistent and skillful campaign of education will overcome the prejudice of the great majority of fish eaters so that they will demand the varieties which they have not known in the past. Then, too, there are hundreds of thousands of people in this country who have never been fish eaters. These people must be educated to eat fish and it is as easy to teach them to like the "new" fish as the old. The grapefruit growers, the oleomargarine manufacturers and many others faced and solved the same problem with the result that America today is eating many kinds of food which were unknown to our fathers and the excessive demand for certain of the longer known foods has been correspondingly lessened.

In this campaign of education the fishing industry already has the help and active co-operation of dietists, and government food officials and it remains only for the purveyor of fish to do his part. The public has been started and it is the duty of the trade to keep it coming for fish.

Failure to take advantage of the situation presented at this time will mean more than loss of increased business, it will mean a continually growing scarcity of the better known fish and correspondingly higher prices and eventually, if persisted in, the ruination of a valuable business, valuable both to the men engaged in the industry and to the great body of consumers.

### Chemists Study Oyster Handling

**Oysters lose valuable food elements and may soak up water enough to increase their bulk from 35 to 50 per cent when handled by methods used in many of the commercial oyster houses, say the specialists of the Bureau of Chemistry, U. S. Department of Agriculture, who have just reported the result of an extensive study of the chemical changes occurring in oysters during their preparation for market.**

**The details of the investigations and the conclusions reached are given in full in U. S. Department of Agriculture Bulletin No. 740, "A Study of Some of the Chemical Changes Which Occur in Oysters During Their Preparation for the Market," recently issued by the Department.**

**The bulletin shows that the practice of agitating oysters by means of a blast of air or a mechanical device while soaking them in fresh water causes a large increase in volume in the oysters in a short space of time, the additional bulk being due to the oysters soaking up water. Valuable food elements are soaked out by this process. Oysters covered with water, but not agitated are not appreciably affected by osmosis (soaking up water) unless soaked for a rather long time.**

**When oysters were washed in unpolluted water about as salty as that in which they were grown, no increase in volume occurred; the actual loss of nutrients was slight, and the oysters were cleaned as effectively as they were by being washed in fresh water. The old method of washing oysters on a skimmer with a hose and paddle gives much less loss and therefore much higher content of total solids and food value than does the method of washing by a water current and air agitation.**

A notable example of the results of catering to the prejudiced demand for a favorite fish is furnished by the conditions under which halibut, one of the most asked for fishes, is taken today as compared with the halibut fishing conditions of a few years ago. Not many years ago halibut was caught in large quantities off the near northwestern coast of the United States, but today these fishing banks are practically exhausted of this fish and the fishermen are compelled to go as far as Alaska to secure their catch. Of course, the cost of securing large quantities of halibut is much greater than formerly and the cost of the consumer is correspondingly higher.

As a matter of protection to the industry and to insure a properly varied food diet in the future, fishermen must educate themselves to market the "new" fish and protect the banks where the more sought for varieties are found; the public must be educated to eat more varieties and legislative help must be sought to insure the preservation of nearby fishing grounds.

The problem of supplying fish to the interior communities of the country is a problem of proper freezing, proper packing and proper transportation facilities.

Here too we run into the prejudice of many people against eating frozen fish. The Bureau of Chemistry has demonstrated that fish, when properly frozen and handled are just as good in flavor and food value as when fresh. Much of the old feeling against eating frozen fish can be traced back to improper practices due to ignorance on the part of the men in the fishing industry. But this situation has been fairly well rectified now and many of the larger fishing companies have their boats equipped so that the fish are frozen as soon as caught and they are shipped and marketed under conditions that insure perfect preservation.

The transportation problem, however, needs to be worked out as the fishing industry has been very much neglected in the past as regards being furnished with proper transportation facilities for shipping fish to remote interior points. The co-operation of government officials, transportation officials and the fishing industry men will be needed to solve this problem properly. Canada is a step ahead of this country in this regard as Canada already has ex-

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express service established to a limited extent and "Sea Food Specials" take fish and oysters at fast mail speed from the coast points to interior communities.

But it is when you mention legislation that the brow of the man of the fishing industry begins to cloud. He wants legislation, the good kind, and he fears legislation, the bad kind. And he knows that when legislation is started it's often a toss up as to which kind he is going to get.

He respects the work of the Bureau of Fisheries and wants more of it. There is no doubt that this branch of the government work should be more heavily financed so that it can enlarge the scope of its work. This is especially true in regard to the work of this department in the Great Lakes and in other lakes and in the rivers. These food fields need better protection and more propagation work. The oyster industry also needs greater encouragement from both the state and the national legislators and the oyster "farming" business should be greatly enlarged. The State of Virginia has done some notable work along this line and the States of New York and New Jersey have recently inaugurated a move to plant new oyster beds in bays and rivers after first dredging and cleaning up the ground so that the product will be pure and wholesome.

If the advise of the men who have labored for years in the Bureau of Fisheries is followed and the legislators will act in accordance with their suggestions instead of simply trying to favor particular localities where they will be able as a result of their work to cultivate votes whether the locality is suited for the cultivation of the fishing industry or not, the future fish and sea food supply of the people of this country will be assured.

## RECENT PATENTS

1,282,021. Hydraulic machine for pressing olives. Emmanuel N. Archavlis, Canton, Ohio.

1,282,069. Fruit-grading machine. Fynis C. Gordon, Wenatchee, Wash.

1,282,240. Candy-pulling machine. Anthony F. Koerber, Detroit, Mich.

1,282,250. Combined asparagus grader and cutter. David Low and Albert R. Thompson, San Jose, Cal.; said Thompson assignor to said Low.

1,282,251. Method of treating bread. Henry J. Lueders, Washington, D. C.

1,282,252. Apparatus for treating bread. Henry J. Lueders, Washington, D. C.

1,282,312. Peanut-blanching machine. Taddeo C. Suziz, Chicago, Ill.

1,282,788. Machine for removing corn from the cob. William B. Fenn, Columbus, Ohio, assignor to Wedoit Co., same place.

1,282,789. Corn-cutting machine. William B. Fenn, Columbus, Ohio, assignor to Wedoit Co., same place.

1,282,790. Knife structure for removing green corn from the cob. William B. Fenn, Columbus, Ohio; assignor to Wedoit Co., same place.

1,282,791. Machine for cutting green corn from the cob. William B. Fenn, Columbus, Ohio, assignor to Wedoit Co., same place.

1,282,792. Machine for cutting green corn from the cob. William B. Fenn, Columbus, Ohio, assignor to Wedoit Co., same place.

1,282,866. Candy-pulling machine. Anthony F. Koerber, Detroit, Mich.

1,282,867. Bread-making composition. Henry A. Kohman, Pittsburgh, Pa., Charles Hoffman, New Rochelle, N. Y., and Alfred E. Blake, Pittsburgh, Pa., assignors to Ward Baking Co., New York, N. Y.

1,282,868. Bread-making composition. Henry A. Kohman, Pittsburgh, Pa., Charles Hoffman, New Rochelle, N. Y., and Alfred E. Blake, Pittsburgh, Pa., assignors to Ward Baking Co., New York, N. Y.

# JUDGMENTS under the FOOD and DRUGS ACT

## *Apple Butter*

### 6085. Adulteration of apple butter stock.

Adulteration of apple butter was alleged for the reason that it contained decomposed vegetable substance. On Feb. 11, 1918, condemnation was entered and product ordered destroyed.

## *Brandy*

### 6054. Adulteration and misbranding of ginger and brandy cordial.

Misbranding and adulteration was alleged because label attached to bottle read "Ginger and Brandy Cordial," and was found to contain neutral spirits instead of ginger and brandy cordial. On Jan. 30, 1918, the defendant pleaded guilty and paid a fine of $100.

## *Candy*

### 6051. Misbranding of candy.

An article labeled "Pan-Pac, the New Nut Confection," was branded misleading and false in that it was labeled to represent part of nuts, which it did not, and that it weighed 2 ounces, whereas each package contained 1.52 ounces. On Feb. 11, 1918, the defendant pled guilty and was fined $50.

## *Catsup*

### 6076. Adulteration of ketchup.

Adulteration of above article was alleged for the reason that it consisted of a filthy, decomposed and putrid vegetable substance. On Jan. 28, 1918, condemnation was entered and it was ordered by the court that product should be destroyed.

## *Corn*

### 6100. Adulteration and misbranding of canned corn.

Corn labeled "Purity Brand Country Gentleman Corn" was found adulterated and misbranded as label reads ingredients are salt, water and cane sugar, but contained salt, water, cane sugar and corn cobs and husks. On Feb. 5, 1918, product released on $1500 bond in conformity with section 10 of the act.

## *Feed*

### 6052. Misbranding of cottonseed meal.

An article labeled American Red Tag Cotton Seed Meal was misbranded as containing not less than 7.50 Ammonia, 6.17 Nitrogen, 38.55 Protein and 11.50 per cent Crude Fibre, whereas it contained less ammonia, nitrogen and protein, and more crude fibre than was declared on label. On March 5, 1918, the defendant pled guilty and paid a fine of $25 and costs.

### 6068. Adulteration of oats.

Oats were found to be adulterated for the reason that added water had been mixed and packed therewith, so as to reduce and lower and injuriously affect its value, and added water was substituted for oats. On Feb. 6, 1918, the product was released on bond, conditioned that oats should be properly remoisture contained.

### 6075. Adulteration and misbranding of oats.

The articles labeled "Plump and Heavy White Oats" was charged labeled so as to show amount of as being adulterated and misbranded for the reasons that, barley screenings and no grade white clipped sulphured oats had been mixed and packed, so as to reduce and lower and injuriously affect its quality and strength and was substituted for the article. Each bag was labeled "Plump and heavy white oats—160 pounds," which did not. Product released on bonds conditioned to be relabeled.

### 6089. Misbranding of dairy feed.

The article labeled "Moca Dairy Feed" was alleged misbranded as it claimed to have more fat, protein and fiber than the product really contained. On March 23, 1918, defendant pleaded guilty, and was fined $10.

## *Fish*

### 6056. Adulteration and misbranding of sardines.

A condemnation of sardines was filed charging article was labeled "Balboa Brand Sardines" and purported to be a foreign product, and was found to be a domestic product. It consisted of a filthy and decomposed animal substance. No claimant having appeared for the property, it was ordered by the court that the product should be destroyed.

### 6062. Adulteration of sardines.

An article labeled "Holmes American Sardines" was alleged to be adulterated because it consisted of a filthy, decomposed, and putrid animal substance. This was released on $5,000 bonds, and good portions of product released for food purposes and balance to be destroyed or denatured.

### 6069. Adulteration of anchovies.

The article labeled "Anchovies in salt extra Genova Brand" was alleged as being adulterated for the reason that it consisted of a decomposed animal substance. On January 8, 1918, a condemnation was entered and the product was ordered to be destroyed.

### 6070. Adulteration of sardines.

Substantially the same as 6056.

## *Flour*

### 6057. Adulteration of flour.

Adulteration of above article was alleged for reason that the flour was infested with webs, dead worms, live worms, dead weevil, and live weevil. The product was released to claimant on $200 bond and that product would not be sold or used in any way for human consumption.

## *Fruit*

### 6064. Adulteration of prunes.

The above article was charged as being adulterated as it was found that it consisted of a filthy and decomposed vegetable substance and animal matter, namely, larvae of common fruit moth, living worms, refuse, and disintegrated vegetable matter. The product was released Jan. 7, 1918, on bond conditioned that claimant should sort prunes and destroy all prunes unfit for human food.

### 6071. Adulteration of oranges.

It was alleged that oranges were found to be adulterated because they were decomposed, that is to say, had been frozen, and as a result had commenced to rot and decay. On Dec. 29, 1917, condemnation was entered that the product should be destroyed.

### 6086. Adulteration of grapefruit.

Grapefruit was alleged adulterated because it had been frozen and consisted of bitter, soft, mushy and partly decomposed grapefruit. On Feb. 2, 1918, condemnation was entered and the court ordered product destroyed.

## *Gelatin*

### 6084. Adulteration of gelatin.

Gelatin found to be mixed with glue and substituted for the article was alleged as being adulterated. It was alleged for the further reason that it contained added poisonous and deleterious ingredients. On March 2, 1918, the product was released on bond in conformity with section 10 of the act.

## *Milk*

### 6082. Adulteration and misbranding of evaporated milk.

The article labeled "Blue Ribbon Brand Milk" was alleged to be adulterated for the reason that a partially evaporated milk was mixed which reduced and injuriously affected its quality, and had ben substituted for the article. Misbranding of the article was alleged as it bore the label "Blue Ribbon Evaporated Milk" whereas it was not, but was a product other than pure evaporated milk. Product was ordered released on bond, conditioned to be relabeled.

### 6083. Adulteration and misbranding of evaporated milk.

Substantially the same as No. 6082.

## *Olive Oil*

### 6092. Adulteration and misbranding of olive oil.

The article labeled "Finest Quality Oil Extra Pure of Termini" was found adulterated because it consisted of cottonseed oil, which was mixed and packed which reduced its quality. Misbranding was alleged as the labels read "Olive Oil." On March 29, 1918, condemnation and forfeiture was entered, and product sold by U. S. marshal.

### 6093. Adulteration and misbranding of olive oil.

Substantially the same as No. 6092.

### 6094. Adulteration and misbranding of olive oil.

Substantially the same as No. 6092.

### 6095. Adulteration and misbranding of olive oil.

Substantially the same as No. 6092.

### 6096. Adulteration and misbranding of olive oil.

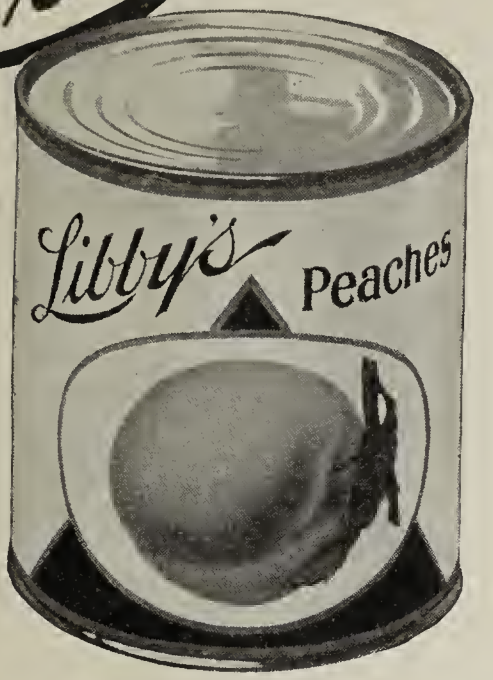
Substantially the same as No. 6092.

## *Tomatoes and Tomato Pulp*

### 6055. Adulteration of tomato pulp.

Adulteration of the above was alleged for the reason that it consisted of a decomposed vegetable substance. A condemnation of this article was entered and was ordered by the court that the product should be destroyed.

Libby's



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**Libby, McNeill & Libby, Chicago**

**6058. Adulteration of tomatoes.**

Product labeled "Aunt Jane Brand Tomatoes," was alleged adulterated for the reason that added water had been mixed and packed with the product so as to reduce and lower and injuriously affect its quality and strength and substituted for tomatoes. The product was released on bond, conditioned that cans of the article should not be sold unless branded with a label reading "This can contains ten per cent of water."

**6059. Adulteration of tomato pulp.**

Adulteration of the above article was alleged for the reason that it consisted of a filthy, decomposed and moldy vegetable substance. Product was released on bond.

**6060. Adulteration and misbranding of tomato pulp.**

Adulteration and misbranding of above article was alleged because it consisted of a decomposed vegetable substance, and that label on package indicated that each package contained 10 oz. of tomato pulp, when they did not. On Jan. 9, 1918, condemnation was entered and was ordered by the court that product should be destroyed.

**6061. Adulteration of tomato pulp.**

It was found that the above article was adulterated because it consisted of a decomposed vegetable substance. A condemnation was entered January 30, 1918, and the court ordered the destruction of the goods.

**6065. Adulteration of tomato pulp.**

Tomato pulp was found to be adulterated for reasons that it consisted of a filthy, decomposed and putrid vegetable substance. The article was released on bonds February 18, 1918, conditioned that the article be used only for purposes of cattle feed.

**6066. Adulteration of tomato pulp.**

Substantially the same as No. 6061.

**6067. Adulteration of tomatoes.**

Substantially the same as No. 6058.

**6072. Adulteration and misbranding of tomato pulp.**

Substantially the same as 6060.

**6074. Adulteration and misbranding of tomatoes.**

Substantially the same as No. 6058.

**6077. Adulteration and misbranding of tomatoes.**

An article labeled "Lodge Farm Brand Hand Packed Tomatoes" was alleged adulterated for the reason that water had been added, mixed and packed which reduced and lowered and injuriously affected its quality and strength, which was substituted for the article. Misbranding of the article was alleged for reasons that it bore a label "Tomatoes" whereas 10 per cent water had been added. The article was released on bonds conditioned that the product be relabeled, Second Grade.

**6080. Adulteration of tomato pulp.**

Article labeled "Old Scout Brand Tomato Pulp" was found to be adulterated, because the product was made from decayed tomatoes. On April 1, 1918, the defendant entered a plea of guilty and paid a fine of $10.

**6088. Adulteration and misbranding of tomatoes.**

Substantially the same as No. 6077.

**6091. Adulteration of tomato pulp.**

Substantially the same as No. 6055.

**6098. Adulteration and misbranding of tomatoes.**

Substantially the same as No. 6077. $500 bond.

### *Miscellaneous*

**6078. Adulteration of mustard seed.**

The above article was alleged adulterated for the reason that it consisted in part of a filthy and decomposed vegetable substance. On Feb. 26, 1918, condemnation was entered and the court ordered product to be destroyed.

**6081. Adulteration of apple pomace.**

Apple pomace was alleged to be adulterated for the reason that it consisted in part of decomposed vegetable substance and was unfit for use as food. On Feb. 11, 1918, condemnation was entered and court ordered product destroyed.

**6097. Adulteration and misbranding of sauerkraut.**

The article labeled "Iona Brand Sauerkraut" was alleged adulterated and misbranded because excessive brine had been mixed which reduced the quality, and package bore statement "Sauerkraut," whereas product contained a quantity of brine. On March 28, 1918, product was released on $3,250 bond in conformity with section 10 of the act.

**6099. Adulteration of dried mushrooms.**

Mushrooms found to consist of part filthy, decomposed or putrid animal or vegetable substance was alleged adulterated. On Feb. 8, 1918, condemnation was entered and the court ordered product destroyed.

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## Canners Tasks Ahead

(Continued from page 8)

and orderly accounts, in accordance with the methods recommended, will prove a revelation even to those that have supposed their own records were complete and satisfactory. With knowledge of the truth as to the cost of his output a canner may know better how to act under market uncertainties, having always a sure foundation upon which to base his calculations and operations. During this convention let those who have not made use of the adopted system get in touch with those that have used it and learn its merits. Thus a practical start on the principle of co-operation will be made.

*Proper Warehousing*

"With increasing cost of urban activities it seems reasonable to look forward to a time when canners may be legitimately called upon to store a larger part of the purchases of distributors than is now the practice. Producers that today possess good warehouse facilities are largely independent of extreme market conditions. The successful development of the New York Canners' Warehouse Company has, at one bound, given cannery credits a position among the most desirable forms of banking paper. If all State organizations would follow this excellent example, worry over canners' finances would become a thing of the past. It is hoped before this convention closes we shall learn that definite steps have been taken to accomplish this end.

*Maintenance of Quality*

"At all times a vital and essential factor, maintenance of quality becomes especially so in the face of an uncertain market. No canner need feel disturbed if he has on hand a surplus of fancy or good standard product for with the progress made the past year in financing by Canners Warehouse Corporation methods, it will be entirely possible to carry such stock until a favorable opportunity for its disposition may be found.

"The latest step in the maintenance of quality is that of organized inspection under the direction of the National Canners Association. Beginning several years ago with the Sardine Canners of Maine, followed in 1915 by Sardine, Vegetable and Fruit Canners of Southern California and adopted within a few weeks by the entire Salmon Canning industry, inspection under the National Canners Association has come to stay and to grow.

"The system contemplates the selection of competent chiefs of inspection with carefully chosen subordinates. The salaries of the inspectors are paid from funds raised by assessment of a certain amount per thousand cans or per dozen or case of product as may be desired. The money is collected by the can manufacturers who charge it to canners upon invoices for cans sold. It is turned over in trust to the National Canners Association which disburses and accounts for it."

The election of officers of the National Canners' Association resulted in Frank Gerber of Michigan being chosen president, Walter J. Sears of Ohio vice-president, and Mr. Gorrell was re-elected secretary.

*Complete Convention Report*

A full report of the Twelfth Annual convention of the National Canners' Association will be given in the February issue of the AMERICAN FOOD JOURNAL. The convention was still in session as this issue goes to press.

Dr. Barnard will write an editorial for our readers on the significance of the action taken during this convention and will analyze the situation as regards the canning industry. Many of the most important speeches will be published in full.

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## Proper Tax on Soft Drink Syrups

We are advised the North Carolina Legislature, convened on January 8, at which time the governor in his message advocated the placing of a tax of 10 per cent on the purchase price of patent and proprietary medicines; a tax of 5 per cent on soft drink syrups; and a tax of 3½ to 5 per cent on tobacco.

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# Bakers Decide In Favor of the Sanitary Regulations

## Hold Meeting to Discuss Ways and Means of Continuing Good Food Administration Rules

AFTER working for a year and a half under the regulations imposed by the National Food Administration as a war measure, the big bakers of this country, at a conference held in Chicago January 9th and 10th, put their stamp of approval on these regulations and indicated their reluctance to return to the old order of doing business. While the fear that an expressed desire for legislation to perpetuate the regulations of the Food Administration might lead to indiscriminate law making, much of which would be injurious to the business, kept many from voting for legislative enactments, nevertheless the conference went on record as favoring the right kind of legislation.

This was the sense of the meeting but it inadequately expresses the spirit of the gathering as shown in the discussions which were precipitated as the various details of proposed legislation were brought out. As the arguments waxed hot and hotter many skeletons of improper practices during the old regime were dragged from their closets and rattled in the ears of those who fought for the return of the old way of doing business.

The meeting was opened by George S. Ward of the Ward Baking Company, as temporary chairman, and he was promptly elected permanent chairman. He then stated the purpose of the meeting and read a draft of a law which had for its purpose the perpetuation of the Food Administration's regulations pertaining to the elimination of insanitary conditions including the return of stale bread practice, the establishment of standard weight for loaves and the curbing of unfair practices. He explained that it was not the purpose of the gathering to approve a model law which could be passed, unchanged, in each state, but that it was offered merely as a basis of discussion so that the assembly could indicate what kind of laws it wanted. He further explained that it would be necessary for the bakers of each state to organize for the passage of legislation drawn up in conformity with the wording and rules of each state's legislature.

Dr. H. E. Barnard, commissioner of Food and Dairy Department of Indiana, who had drawn up a law regulating the sanitation, prescribing standard weights and regulating unfair practices for his state, and which had been used as a model for the proposed regulations that were read previously by Mr. Ward, spoke on the subject of sanitation and hygiene in the baking industry. He told of how the Indiana regulations had worked to the betterment of the baking industry and protection of the public.

After a brief explanation of the meaning of some of the legal points in the bill under discussion, by Attorney Boyle, the meeting was thrown open for the expression of opinions as to whether or not the bakers should stand for the return to the old practice prevalent before the war of accepting back the unsold stale bread left on the hands of the retailer.

This discussion waxed warm after Mr. Ward had made a statement during the afternoon session that he thought that the return of stale bread, if held below five per cent, was a practice that might be continued with advantage to the bakers and to the consumers.

It was pointed out during this discussion that the salesmen frequently indulged in the practice of taking the stale bread from one store and instead of returning it to the bakery, delivering it as fresh bread to another store, and that this practice is practically beyond the control of the proprietor of the bakery.

A vote was taken which resulted in a large majority favoring the continued prohibition of the return of stale bread practice and a smaller majority voted in favor of legislation to bring about this result.

The discussion as to the position that bakers should take in regard to perpetuating the Food Administration's regulations regarding standard weight loaves led to citations by several of the bakers of the evils of such legislation in force in some of the states. Jay Burns of Omaha opposed the fixing of a standard weight loaf saying that it was as unfair to sell bread by the weight as to sell clothing by the yard or weight. He claimed that the fluctuation of the prices of raw materials made it practically impossible to fix standard weights for loaves and keep the prices where they should be in the interest of both baker and consumer. A. L. Taggert of Indianapolis favored the continuation of the standard weight regulations and led the discussion on this side. When the vote was taken a majority of the bakers went on record as favoring the continuation of this regulation.

After a short discussion of the unfair practices regulation the giving of premiums, free samples, etc., this matter was referred to the executive and legislative committees.

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### Pennsylvania Bureau Has Busy Year

THE Dairy and Food Bureau of the Department of Agriculture of Pennsylvania, during the month of November, purchased and had analyzed 750 samples of different kinds of foods and non-alcoholic drinks. Fifty-six prosecutions were ordered, consisting of fruit syrups containing coal tar dye; sausage containing added water; cold storage products not stamped; distilled vinegar colored; eggs unfit for food, being decayed; fake canning compounds; milk low in butter-fat and watered; cream below the standard in butter-fat, and non-alcoholic drinks, so-called, which proved upon analysis to be alcoholic and intoxicating.

The receipts of the office for the month of November were $6,510.92. The total receipts from January 1st to December 1st were $485,326.21.

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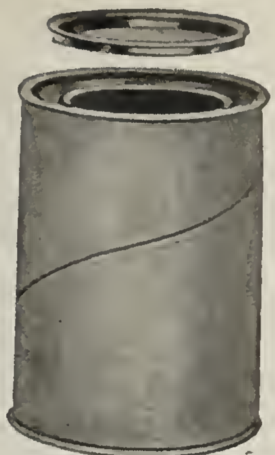
Profiteering in flour has also led to the limited revocation of the license held by H. Vanderbilt & Company, a wholesale grocery firm of Chicago, which will be closed 7 days.



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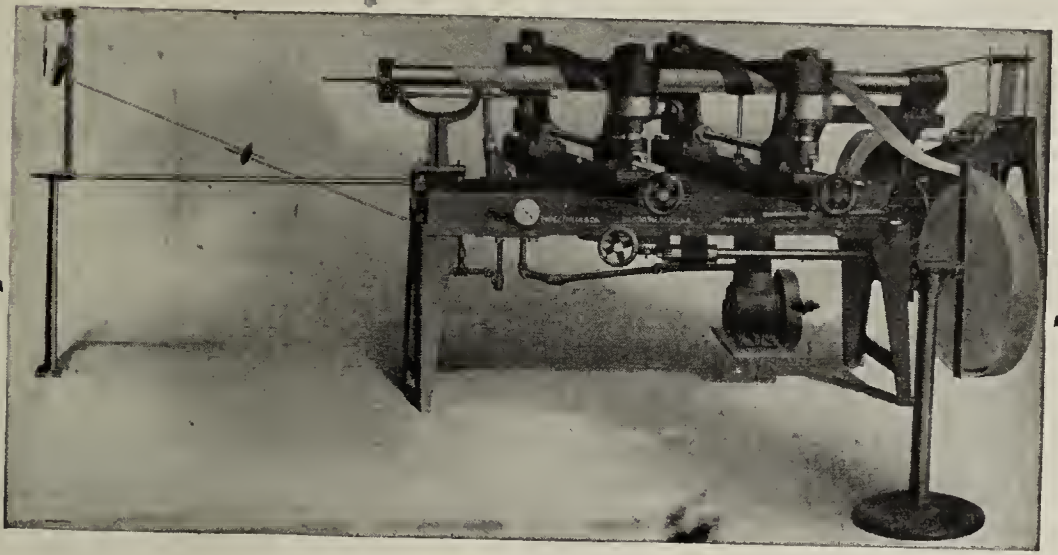

The Package Wind Blows The Langston Way

**Samuel M. Langston Co.**
MANUFACTURERS OF PAPER WORKING MACHINERY
Camden, N. J.

## The Hebe Decision

(Continued from Page 21)

five hundred dollars and imprisoned not less than ten days nor more than ninety days."

The statute defines a crime, and the question is not different than it would be if the plaintiffs were indicted for its violation. While all statutes are to receive a reasonable interpretation, those of a criminal nature are not to be extended by implication. Condensed milk when this statute was passed was well known to be milk from which a considerable portion of water had been evaporated. Condensed milk to be what its name imports must be made from whole milk. If not so manufactured, the legislature has the right to provide that the public shall be advised of the treatment to which it has been subjected. Skimmed milk, conspicuously labelled as such, may be sold in the State of Ohio. (Sec. 12,720, Gen. Code, Ohio.) The legislature has shown no intention to condemn it as an unwholesome article of food. It is not less so when condensed.

### Hebe Is a Compound

We are unable to find in these statutes anything which prohibits the sale of condensed, skimmed milk when it is a part of a wholesome compound sold for what it really is, and distinctly labeled as such. In the section under consideration, 12,725, the Ohio legislature was not dealing with compounds. It was undertaking to assure the purity of a well-known article of food—condensed milk. The statute provides that such condensed milk so offered for sale shall be made of pure, clean, fresh, unadulterated and wholesome milk from which the cream has not been removed, and that the can containing it shall be distinctly labeled with its true name. With deference to the contrary view, it seems to us that reading the statute in the light of its purpose to require condensed milk to be made from whole milk and sold for what it is, the necessary result is to exclude the plaintiffs' compound from the words and meaning of the Act. It is not evaporated milk, and makes no pretense of being such. It is a food compound consisting in part of condensed skimmed milk. It is so labeled in unmistakable words in large print on the can containing it. The label states with all the emphasis which large type can give that it is a compound made of "evaporated skimmed milk and vegetable fat." The proportions of the ingredients are stated. The striking label does not describe condensed milk, and he who reads it cannot be misled to the belief that he is buying that article. It is shown to be wholesome and clean and free from impurities.

It seems to us that the case is within the principle stated by this court in *Hutchinson Ice Cream Company* v. *Iowa*, 242 U. S. 153, in which a statute forbidding the sale as ice cream of an article not containing a certain portion of butter fat was sustained as within the police power of the State. The statute was construed by the highest court of the State where it was produced to include articles sold as ice cream; thus interpreted, we held it to be a constitutional exercise of the police power of the State. So here, we think the legislature of Ohio intended to deal with condensed milk when sold as such, and to make it an offense to sell it when of less than the required purity.

It may be conceded that the statute would include such an article when not up to the standard, but sold for the real thing. The public is entitled to protection from deception as well as from impurity. This principle seems to have controlled the decision of the District Court. The record discloses that in one or more instances dealers had supplied this article as condensed milk. But an act or two of this sort by fraudulent dealers ought not to be the test of the plaintiffs' right, or control the meaning of this statute. If such were the case, very few food compounds would escape condemnation. The few instances of deception shown had not the sanction of plaintiffs' authority. Such acts did violence to the plain terms in which the plaintiffs' printed label disclosed that its product was a compound and defined its parts. The label so truly expresses just what the substance is, that it is difficult to believe that any purchaser could be deceived into buying the article for something other than it is.

The interdiction of the State Board is not against the sale of this article as condensed milk, but of all sales of this compound in the State of Ohio. In our view this criminal statute, rightly interpreted, does not embrace the plaintiffs' product, and that reason alone should be sufficient to warrant a reversal of the decree.

## Food Law Review

(Continued from Page 25)

### TEXAS

During the third session of the 1917 Legislature the following laws were enacted:

Chapter 6 amends Chapter 181 of of the 1917 regular session establishing standard containers and standard packs and grades for fruit and vegetables by adding a section defining "culls" and making the terms apply to all fruits and vegetables for which standard grades have been established.

Chapter 25 requires packages containing certain named poisons to be marked conspicuously in red ink with the word "poison," and also requires records of the sale of such poisons to be kept.

The following laws were enacted during the 1918 session of the Legislature:

Chapter 24 prohibits the manufacture or sale of spirituous, vinous, or malt liquors or medicated bitters capable of producing intoxication, except for medicinal, scientific, mechanical, and sacramental purposes.

Chapter 31 amends the law prohibiting the shipment into the State of intoxicating liquors.

Chapter 63 amends Chapter 181, regular session of 1917, and adds provisions for standard grades and packs of fruits and vegetables.

### VIRGINIA

Chapter 250 amends the existing law confining the possession of habit forming drugs to licensed physicians, dentists, wholesale and retail druggists, etc.

Chapter 271 is an act to punish the making or use of false statements to obtain property or credit.

Chapter 388 is a strict prohibition law, requiring a permit to manufacture, purchase, store and sell flavoring extracts and toilets, medicinal and antiseptic preparations.

**Jiffy-Jell**

***With Salad Flavor***

Jiffy-Jell desserts come in many fruit flavors. But Lime Jiffy-Jell—flavored with lime fruit—makes the best salad jell.

It is tart and green. The flavor comes in liquid form, sealed in a vial.

Serve with your salad. Or mix in vegetables, cooked or uncooked before the Jiffy-Jell cools. Left-overs will do. Or mix in meat scraps and make a meat loaf.

Try Loganberry Jiffy-Jell for a dessert, and Lime for a salad jell. One package serves six. These quick, economical dainties serve a big need today.

***2 Packages for 25 cents, At Your Grocer's***

**Jiffy-Jell—Waukesha, Wisconsin**

(357)

### EUROPEAN MEAT

LARGER importations of meat and pork products from the United States, thus lessening the slaughtering of native animals, will be the most effective means of restoring the depleted animal herds of the United Kingdom, France and Italy.

This is the information just received from Dr. Vernon Kellogg, of the United States Food Administration, now in France on official business. Dr. Kellogg declares that the losses in cattle in France and Italy are especially serious, not only on account of the meat and milk ordinarily obtained from this source, but also on account of the loss of the services of cattle, through depletion, which are used as work animals on farms in both countries.

"The most recent statistics on animal herds, indicating the number now existing in Allied countries, show a loss of cattle in France of seventeen per cent; in Italy, of fourteen per cent, with the United Kingdom showing no loss; sheep and goats, France, forty-one per cent; Italy, one per cent; United Kingdom, ten per cent; pigs, France, forty-nine per cent; Italy, twelve and one-half per cent; United Kingdom, twenty-five per cent; horses and mules, France, thirty-seven and one half per cent; Italy, twenty-five per cent; United Kingdom, not including animals not employed in agriculture, four and one-half per cent.

"The losses in cattle in France and Italy are not only serious on account of the meat involved, but are especially serious on account of milk and also of work, as cattle are used largely in both countries as work on the farms. It is highly important that the herds be restored as rapidly as possible, which can be done most effectively by larger importations of meat and pork products from America to lessen the slaughtering of native animals.

"The French and Belgian people now being released from formerly occupied territories are demanding, and needing, increased amounts of food over the former relief ration in order to restore health and strength so as to be able to work, thus making larger demands on imports from America."

THERE IS CLEANLINESS, HEALTH INSURANCE, ECONOMY AND CONVENIENCE IN

Our **PET** BRAND **Evaporated Milk**

*The Standard of the World*

Wins and Holds Trade on account of its Superior Quality

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HIGHLAND, ILLINOIS
ORIGINATORS OF EVAPORATED MILK

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The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

*Rumford*
THE WHOLESOME
**BAKING POWDER**

insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

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WAXED PAPER MANUFACTURERS
CINCINNATI, OHIO
U. S. A.

# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY

**Alimentary Paste Manufacturers' Association, Inc.**
W. A. Schmitt, *Secretary*, C. F. Mueller Co., Jersey City, N. J.

**American Association of Creamery Butter Manufacturers**
Prof. George L. McKay, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Association of Refrigeration**
J. F. Nickerson, *Secretary*, 431 South Dearborn St., Chicago, Ill.

**American Bottlers' Protective Association**
William T. Phillips, *Secretary*, 218 East Thirty-seventh St., New York, N. Y.

**American Chain of Warehouses**
New York City.

**American Chemical Society**
Charles L. Parsons, *Secretary*, Box 505, Washington, D. C.

**American Corn Millers' Federation**
Douglas Lackey, *Secretary*, Postal Telegraph Bldg., Chicago, Ill.

**American Cranberry Growers' Association**
H. B. Scammell, *Secretary*, Toms River, N. J.

**American Fair Trade League (Price Maintenance)**
Edmond A. Whittier, *Secretary*, Fifth Avenue Bldg., New York, N. Y.

**American Feed Manufacturers' Association**
L. F. Brown, *Secretary*, Milwaukee, Wis.

**American Fruit and Vegetable Shippers' Association**
R. L. Evans, *Secretary*, 139 North Clark St., Chicago, Ill.

**American Grocery's Society (Anti-Chain Store)**
Lloyd Curtiss, *Secretary*, Newark, N. J.

**American Home Economics Association**
Miss Cora Winchell, *Secretary*, 1211 Cathedral St., Baltimore, Md.

**American Institute of Weights and Measures (Anti-Metric)**
30 Vesey St., New York, N. Y.

**American Manufacturers' Association of Products from Corn**
L. Hohmeyer, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Meat Packers' Association**
Robert G. Gould, *Secretary*, 116 Nassau St., New York, N. Y.

**American Metric Association**
Howard Richards, Jr., *Secretary*, 156 Fifth Ave., New York, N. Y.

**American National Live Stock Association**
E. W. Tomlinson, *Secretary*, 515 Cooper Bldg., Denver, Colo.

**American Paper and Pulp Association**
A. D. Naylor, *Secretary*, Room 604, 18 East 41st St., New York City.

**American Poultry Association**
E. B. Campbell, *Secretary*, Mansfield, Ohio.

**American Society of Refrigerating Engineers**
William H. Ross, *Secretary*, 154 Nassau St., New York, N. Y.

**American Specialty Manufacturers' Association**
H. F. Thunhorst, *Secretary*, 100 Hudson St., New York, N. Y.

**American Spice Trade Association**
John Clarke, *Secretary*, 124 Front St., New York, N. Y.

**American Warehousemen's Association**
Charles L. Criss, *Secretary*, Liberty and Second Aves., Pittsburgh, Pa.

**Biscuit and Cracker Manufacturers' Association**
Edward Griswold, *Secretary*, 105 Hudson St., New York City.

**Canning Machinery and Supplies' Association**
J. A. Hanna, *Secretary*, Cadiz, Ohio.

**Chain Store Grocers' Association of New York**
W. E. Evans, *Secretary*, 97 Warren St., New York, N. Y.

**Council of Grain Exchanges**
J. Ralph Pickell, *Secretary*, 417 Postal Telegraph Bldg., Chicago, Ill.

**Dried Fruit Association of California**
Henry P. Dimond, *Secretary*, 255 California St., San Francisco, Cal.

**Flavoring Extract Manufacturers' Association**
G. M. Day, *Secretary*, 117 Buffalo St., Milwaukee, Wis.

**Fraternity of Operative Millers of America**
Kent, Ohio.

**Grain Dealers' National Association**
Charles Quinn, *Secretary*, Toledo, Ohio.

**Insecticide and Disinfectant Manufacturers' Association**
Frank Hemingway, *President*, New York, N. Y.

**International Apple Shippers' Association**
R. G. Phillips, *Secretary*, 522 Mercantile Bldg., Rochester, N. Y.

**International Milk Dealers' Association**
Samuel O. Dungan, *Secretary*, 1100 East 15th St., Indianapolis, Ind.

**Inter-State Cotton Seed Crushers' Association**
Louis N. Geldert, *Assistant to the President*, 1339 H St., N. W., Washington, D. C.
Robt. Gibson, *Secretary*, Dallas, Tex.

**Maltsters' Bureau of Statistics**
R. A. Wittl, *Secretary*, 10 North Dearborn St., Chicago, Ill.

**Manufacturers' & Dealers' Association of America (Anti-Prohibition)**
A. P. Daniels, *Business Manager*, 36 West Randolph St., Chicago, Ill.

**Manufacturing Chemists' Association**
A. H. Weed, *Secretary*, 53 State St., Boston, Mass.

**Millers' National Federation**
A. P. Husband, *Secretary*, 911 Royal Insurance Bldg., Chicago, Ill.

**National Association Apple Cider & Vinegar**
W. H. Armstrong, *Secretary*, Rochester, N. Y.

**National Association of Box Manufacturers**
F. C. Gifford, *Secretary*, 1210 Edison Bldg., Chicago, Ill.

**National Association of Ice Cream Manufacturers**
Asa B. Gardiner, Jr., *President*, 520 N. Calvert St., Baltimore, Md.

**National Association of Master Bakers**
J. M. Bell, *Secretary*, Royal Insurance Bldg., Chicago, Ill.

**National Association of Retail Druggists**
T. H. Potts, *Secretary*, 122 South Michigan Blvd., Chicago, Ill.

**National Association of Retail Grocers**
Jno. H. Schaefer, *President*, New York, N. Y.

**National Association of White Corn Millers**
Charles Schmidt, *Secretary*, c/o Schmidt & Walker, Cincinnati, Ohio.

**National Association of Wholesale Grocers**
Alfred H. Beekmann, *Secretary*, 6 Harrison St., New York, N. Y.

**National Basket & Fruit Package Manufacturers' Association**
Howard S. Young, *Secretary*, Indianapolis, Ind.

**National Canned Foods and Dried Fruit Brokers' Association**
James M. Hobbs, *Secretary*, 326 W. Madison St., Chicago, Ill.

**National Canners' Association**
F. E. Gorrell, *Secretary*, 1739 H St., N. W., Washington, D. C.

**National Coffee Growers' Association**
Jorge Armstrong, *Secretary*, Ponce, Porto Rico.

**National Coffee Roasters' Association**
George W. Toms, *Secretary*, 201 Tchoupitoulas St., New Orleans, La.

**National Dairy Council**
W. E. Skinner, *Secretary*, Room 405, 130 North Wells St., Chicago, Ill.

**National Dairy Union**
W. T. Creasy, *Secretary*, Catiwissa, Pa.

**National League of Commission Merchants of the United States**
R. S. French, *Secretary*, 90 W. Broadway, New York, N. Y.

**National Manufacturers of Soda Water Flavors**
Thomas E. Lannen, *Secretary*, 1238 First National Bank Bldg., Chicago, Ill.

**National Milk Producers' Federation**
George Brown, *Secretary*, Sycamore, Ill.

**National Peanut Cleaners' and Shellers' Association**
Everett A. Fee, *Secretary*, 400 American Bank & Trust Bldg., Suffolk, Va.

**National Pickle Packers' Association**
Frank A. Brown, Secretary, 1546 Cortland St., Chicago, Ill.

**National Poultry, Butter and Egg Association**
P. F. Combiths, *Secretary*, 221 West South Water St., Chicago, Ill.
W. T. Siebels, *Business Manager*, 208 N. Wells St.

**National Research Council**
A. P. Taylor, *Chairman Food Division*, Washington, D. C.

**National Swine Growers' Association**
J. J. Doty, *Secretary*, Shenandoah, Ia.

**National Trade Association (Anti-Price Maintenance)**
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**National Wholesale Druggists' Association**
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**Natural Ice Association of America**
H. W. Cole, *Secretary*, 18 E. 41st St., New York, N. Y.

**Oyster Growers & Dealers' Association of North America**
William H. Killian, *President*, Baltimore, Md.

**Refrigerating Machinery Club**
J. S. Louis, *Secretary*, Cincinnati, Ohio.

**Rice Millers' Association**
J. R. Leguenec, *Secretary*, Beaumont, Tex.

**Southern Cattlemen's Association**
R. M. Gow, *Secretary*, Little Rock, Ark.

**Southern Rice Growers' Association**
E. A. Eignus, *General Manager*, Beaumont, Tex.

**Tea Association of the United States of America, Inc.**
John C. Wirtz, *Secretary*, 106 Water St., New York, N. Y.

**United States Brewers' Association**
H. F. Fox, *Secretary*, 50 Union Square, New York, N. Y.

**United States Sugar Manufacturers' Association**
Truman G. Palmer, *Secretary*, Washington, D. C.

**Western Fruit Jobbers' Association of America**
W. D. Tidwell, Esq., P. O. Box 1349, Denver, Colo.

**Western Paper Box Manufacturers' Association**
J. L. Kalleen, *Secretary*, 817 Board of Trade Bldg., Indianapolis, Ind.

## Barnard's Editorials

(Continued from Page 27)

is the conclusion that the 1917 corn crop was practically responsible for the plague of influenza. The corn crop for that year was seriously damaged by frosts and the crop of the great corn states was far inferior in quality to that of other years, but the crop of the South where Pellegra is prevalent was of its usual quality. So far as the records show, there has been no increase in the disease among corn eaters in the states where the damage was done.

### FOOD LIKE "MOTHER USED TO MAKE"

"Veal pie," as the immortal Sam Weller observed, "is a fine thing, when you know the lady as made it." Home cooking, no matter how plain the fare, calls us willingly to the dinner table far more insistently than the hotel or restaurant or dining car food ever can, and Sam Weller hit upon the reason. We like to know the cook who prepares our food. We like to place dependence for the preparation and quality of the food we eat on someone whom we can trust. We cannot now follow the old practice of employing food "Tasters" to sample every dish before we dip into it. We must take our food for granted.

Many a little boarding house on a side street draws to its table year in and year out the people who have discriminating tastes and who leave the broad avenue, lined with glittering cafes and fashionable restaurants, to enjoy a quiet meal prepared by those they have learned to depend upon.

Boarding houses are traditionally the place where a great deal of poor food is worked off upon undiscriminating guests. The transient trade which visits lunch rooms and restaurants down near the railroads and wholesale markets is, of course, served cheap food, often carelessly prepared. But there is no reason why the boarding house we used to know should not thrive. And there is no reason why our boarding house should not operate successfully and fill a real want, if the kitchen and the dining room have an intimate relationship with each other, so that the cook knows the boarder and the boarder trusts the cook, in supplying those whom fate or even fortune denies the luxury of a real home.

As you are sufficiently interested in the all-important subject of food to subscribe for THE AMERICAN FOOD JOURNAL you, no doubt, will want to keep current issues thereof in safety—*and still instantly accessible*—pending permanent binding.

The binder shown above does all that a first class temporary binder should do.

It is sturdy and yet light; the locking device is simple but quite effective; it does ***not*** call for mutilation of the magazine.

It enables you to read the innermost edge of the innermost column without conscious effort; it lies perfectly flat.

It is a finished product of a specialty house whose binders—of one sort or another—are in nearly every club, hotel, library and similar place where current magazines are kept.

This binder ordinarily sells for $1.65, without the side- and back-stamping—which is gold leaf, heavily embossed. To regular subscribers it will be sent, prepaid, upon receipt of that amount.

To bona fide new subscribers to THE AMERICAN FOOD JOURNAL it will, for a limited period, be given as a premium, the binder and a year's subscription being priced at $3.53, the binder to be sent either to the new subscriber or to the one securing the new subscription.

If you are interested write for further particulars.

The American Food Journal
15 S. Market St., Chicago

# When They Disobey

Six Milwaukee, Wis., firms have been penalized for violations of the United States Food Administration regulations. The cases involved violations of the rules relating to substitutes, since withdrawn. The actions taken, as reported to the Enforcement Division, are as follows:

F. Tarantino, storekeeper, charged with utter disregard of the substitute rules ;the penalty imposed being a limited unfair order, effective from December 20 to February 1.

V. Manciai, storekeeper, charged with dealing in wheat flour without any attempt to comply with the substitute rules; penaly, limited unfair order, effective December 20 to January 19.

C. Maglio, storekeeper, charged with having sold during the period from January to October, about 100 barrels of flour and using ry as a substitute; penalty, limited unfair order as regards wheat flour.

Frank Balistieri, merchant, charged with selling wheat flour with insufficient substitutes; penalty, limited unfair order effective December 20 to March 20.

Frank Italiano, storekeeper, charged with utter disregard of substitute rules; penalty, limited, unfair order, effective December 20 to February 1.

Cianciolo Brothers, wholesalers, jobbers and commission merchants in fresh fruits and vegetables, charged with having been persistent and continuous violators of food regulations and the requirements in reference to the handling and unloading of cars. The reports and correspondence show that this firm was warned at various times, but made no effort to comply with Food Administration requests. They were also charged with disregarding the substitute rules. The penalty imposed was revocation of their Food Administration license, effective from December 20 to February 1.

Under the unfair orders issued licensed dealers are prohibited from dealing with the offenders in the commodities designated, whereby these merchants will have the supply of those commodities cut off for the specified periods, while the firm penalized by revocation of its license will in addition be unable to handle licensed food commodities while the revocation is in effect.

These penalties for profiteering have been reported to the Enforcement Division of the United States Food Administration:

Massachusetts: Globe Market, 50 Center street, Brockton; Lithuanian Cooperative Market, Marlboro; G. W. Reid, North American Creamery Company, 25 Commercial street, Boston, and L. Gay, Chelsea, all of whom voluntarily contributed small sums to the Italian Relief Fund.

New York: John Savas, 48 West Huron street, and F. Rapp, 1408 Hertal avenue, Buffalo, each closed their places of business for one day for having charged excessive prices for eggs and sugar, respectively.

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Charles T. Battelle, a broker, 1108 Whitehall building, New York City, will be unable to deal in licensed food stuffs for an unlimited period. His license has been revoked by the United States Food Administration.

The revocation order, which is effective tomorrow, will remain in effect until further notice. Mr. Battelle was charged with unfair business practices regarding a sale of honey to the Margo Company.

---

Representatives of three Little Rock, Ark., firms, penalized for violations of Food Administration regulations, appeared in Washington for the purpose of making appeals. After a preliminary hearing they withdrew their requests for appeal hearings and voluntarily accepted reduced periods for closing their establishments.

These concerns were the Scott Mayer Commission Company, convicted for exceeding specified margins in the sale of canned corn and on the sales of other licensed commodities, the original penalty imposed consisting of closing their place of business for fifteen days beginning January 26; the George E. Shelton Produce Company, which firm admitted exceeding maximum margins on non-perishables in violation of the Food Administration rules and were asked to close for fifteen days, and Cooper Dickinson, who plead guilty to violations in exceeding maximum margins on non-perishables and who was given a penalty of five days closing of his business.

The three firms in their requests for appeal hearings protested that the penalties were too severe. Their representative voluntarily accepted reductions in the length of the periods rather than have their appeals passed upon. The Scott Mayer and the Shelton companies agreed to close from Christmas to January 2 and Dickinson for two days, December 26 and 27.

---

More than $1,600 in goods and cash will be contributed voluntarily by Kansas City, Mo., firms to the Mayor's Christmas Tree Fund, as the result of hearings held in connection with violations of the regulations of the United States Food Administration. The firms and their contributions are:

Green Brothers Mercantile Company will contribute goods to the value of $500.

McCarty Wholesale Grocer Company will contribute goods to the value of $500.

The S. W. Noggle Company will contribute $400 to the fund in cash or goods.

James A. Harper Supply Company, 25 bags of rice flour of 100 pounds each, value $200.

The J. C. Stevens Mercantile Company, $31.08 in cash.

---

Effective at once the license of the Oklahoma Fruit and Melon Growers Association of Chickasha, Okla., will be revoked for an unlimited period. The association, dealers in fresh fruits and vegetables, carlot shippers of potatoes, distributers of cottonseed and farmers stock peanuts, refused to appear for a hearing allowed them to show cause why their license to deal in licensed food commodities should not be revoked for having refused to unload a car of perishables. The rejection occurred before the recent withdrawal of rules relating to fresh fruits and perishables.

---

Flagrant disregard of the fair price schedule, overcharges in two hundred and forty-six retail sales amounting to $477 and one hundred and six wholesale transactions with overcharges to the amount of $970, has cost the Farmers Cooperative Mercantile Company of Scribner, Dodge county, Nebraska, its Food Administration license to deal in licensed food commodities. The penalty of an unlimited revocation order went into effect December 26 until further notice. The company manufactures, stores and distributes wheat, rye and their derivative products.

---

Hearings given three Michigan firms—the National Grocer Company of Traverse City, the National Grocer Company of Jackson and the Haut Grocery Company of Charlevoix—disclosed that none of the violations of the Food Administration regulations with which they were charged were intentional, but were due to misunderstanding or misinterpretation of the rule.

In lieu of closing for two weeks each, the National Grocer Company of Traverse City was permitted to make a voluntary contribution of $250 to the American Red Cross; the National Grocer Company of Jackson contributed $110 to the War Chest Fund, and the Haut Grocery Company of Charlevoix contributed $100 to the American Red Cross.

For violating the rules and regulations of the Food Administration, Brehmer & Nicoll, 397-403 High street, Detroit, Michigan, have been permitted to contribute $100 to the American Red Cross in lieu of more drastic penalty.

---

The Buffalo Distributing Companypany and F. Brennison & Son, both of Buffalo, N. Y., have agreed to close their places of business for three days, January 2, 3 and 4. This is the final settlement of an old case, a false report covering an excess profit having been made on a car of potatoes.

---

Shear & Co. of Waco, Texas, considered the largest wholesale grocery jobbing house in the state, with branches in Austin, Temple, Dublin and Hillsboro, have agreed to make a voluntary contribution to the Free Milk for France, Inc., through the Washington branch, of condensed milk at invoice cost price of $4,307.50, the exact amount of profteering with which they were charged at a hearing before the Texas Food Administration.

At this hearing they admitted having taken excessive profits on canned corn and tomatoes, and were found guilty also of issuing arbitrary bulletins of instructions to their salesmen in disregard of Food Administration rules and regulations.

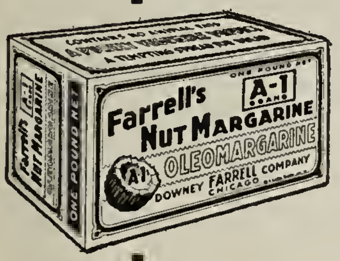
**Nucoa**

**Made of Nuts and Milk**
**Free From Animal Fats**

This product is taxed and regulated the same as animal oleomargarine. We oppose the former and positively favor the latter. We want this product sold on its merits for just exactly what it is. We refuse to sell moonshiners. This product is sold only in one, two and five pound cartons. Our business has grown rapidly on new, progressive lines.

**The Nucoa Butter Company**
*Churners*
Sales Department — 2283 Woolworth Building, - New York

**All Nut Margarines Are Not Alike**



A perfect Nut Margarine should have the following requisites:

Keep sweet as long as butter.
Soften at the same temperature.
Have a butter flavor.
Have a texture so as to spread like butter.

FARRELL'S A-1 Brand has stood the test through the hottest months of Summer. We stand ready at all times to prove this statement.

Made from the delicious juice of cocoanuts.
Churned in pasteurized milk.
Contains no animal fats.

DOWNEY-**FARRELL** COMPANY
CHICAGO, ILL.

**E. PRITCHARD**
*Packer and Manufacturer of the Finest*
**"EDDYS"**
**BRAND**
Canned Foods, Jellies, Preserves,
Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup

Bridgeton, N. J. and 331 Spring Street, New York

## Corn Milling

(Continued from Page 19)

acidity corn shows very high per cent of germination. As a rule damaged corn will show a very high range of acidity. We have found that acidity can range as high as 40 cc without materially affecting the smell, taste or appearance of degerminated meal. But any meal running over 40 cc acidity is not safe. We have found the acidity in corn runs very high this year. But because the acidity runs high in the germ and bran it is possible to materially reduce the acidity in the meal. For instance, corn running as high as 28½ cc acidity when ground reduces the acidity in the germinated meal to 19 cc while corn running around 20 cc acidity showed only 14 cc in the degerminated meal. We have found that degrees of acidity increased very rapidly in heating corn.

We are convinced that sterilization and proper reduction of moisture and the reduction of fat are essential in the manufacture of high grade corn products. Our investigation has led us to believe that the reduction of moisture and fat are very essential and we know that the degree of acidity is a very important item and that the checking of acidity is imperative, and this can be done, first, by the reduction of moisture, second, by reduction or elimination of fat, and third, by sterilization. All of which leads us to recommend that a first class mill immediately equip a laboratory in their own plant or arrange a working basis with some first class laboratory because it is eminently essential that you know what you are doing and that you mill your products on scientific basis and don't try to make bricks without straw. Remember that a good corn miller is more essential than a good flour miller, that you must have efficiency in your plant.

We could not discuss the "how" of the science of corn products without mentioning standardization and publicity. But in my humble judgment it is essential that we establish at once a set of high standards that will put the corn milling industry on a high plane and that we religiously live up to these standards and that we let the American people know the high quality of corn products properly manufactured and standardized. In other words, high standards properly maintained and supported by efficiency and by effective publicity. We cannot afford to make low standards simply to fit present conditions. We should adopt high standards and make proper changes in our milling methods to reach them. It is a very simple matter to change the flow and corrugation and tempering system of any roller degerminating mill so as to get results as outlined above. Because we haven't done so in the past is no reason why we should not do so now.

Remember it was only 11 years ago that Hon. Joseph G. Cannon, at that time speaker of the House of Representatives, recited on the floor of the House some verses from "Derrius Green and His Flying Machine." Remember that the House of Representatives with great laughter killed the bill which would have appropriated $50,000 for experimental work.

---

An address recently delivered before the American Corn Millers Federation.

Joseph Tripi, a wholesaler, jobber and retailer of flour, and Stephano Tripi, a retail grocer, both of Buffalo, N. Y., have been penalized by the Food Administration for illegal dealing in flour. Stephano Tripi was shown to have been an accomplice with Joseph Tripi in selling flour without the required amount of substitutes. This is Joseph Tripi's second offense, the first having resulted in a contribution of $350 to the Red Cross in lieu of a revocation of his license. Because of his second offense the Food Administration has revoked his license, and has ordered all licensees to fill no orders from either Joseph or Stephano.

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You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by Wm. J. Moxley, Chicago
INCORPORATED

## Storage Eggs

(Continued from Page 16)

places cold-storage warehouses if food is held there at or below 45° F. for thirty days or more. It may be incidentally mentioned that the cold-storage eggs are handled under better conditions, and the eggs are, on the average, better eggs.

The eggs laid in March, April and May, which constitute the bulk of cold-storage stock, are of exceptional keeping quality, and laid plentifully, and, naturally, are shipped and stored more quickly than those gathered later in the season. These are the eggs which are held for the winter trade. The eggs placed in cold storage during July, August and September, are, as a rule, removed from the storage before the spring eggs are touched.

The Department endeavored to obtain the services of egg brokers to testify in court relative to trade definitions regarding eggs, but the best it could obtain was the stereotyped definition that all eggs, not cold-storage eggs, were entitled to be called "fresh" eggs. We therefore used the dictionary for the establishment of a definition, and found it much more satisfactory and truthful.

By reason of an unwarranted prejudice against cold-storage food, the public prefers to pay an additional 25 per cent for the purpose of fooling itself into the belief that it is not purchasing cold-storage eggs. This is well illustrated by the procedure of one dealer in Massachusetts who was purchasing only one quality of cold-storage eggs. He removed the eggs indiscriminately from the cases into various baskets, and placed different price marks upon them, such as 35 cents, 40 cents, 45 cents, 50 cents, 55 cents, 60 cents and 65 cents per dozen. He did this, he stated, to accommodate his customers, since many of them did not care to buy cheap eggs, but desired high-priced ones.

During the early portion of this year the State Department of Health made 62 prosecutions, of which 60 convictions were secured. Thirty-six of these convictions were for the sale of cold-storage eggs not properly labeled; 13 were for the sale of old eggs as fresh eggs, in violation of the false advertising law; and 11 were for the sale of decomposed eggs. The two cases lost were for the sale of cold-storage eggs not properly labeled.

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**Kalamazoo Vegetable Parchment Company**

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*The world's cleanest paper mill. Makers of Vegetable Parchment, Waxed and Bond Papers*

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**CONTAINERS**
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**Foods—Drugs—Oils**

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**Large Capacities**
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**Largest Manufacturers**

# What Commissioner Faust Has Done

In a statement of the work of the dairy and food division of the Pennsylvania Department of Agriculture for the past year, along with a record of the operation of the division from 1907 to 1918, inclusive, James Foust, dairy and food commissioner, gives some information which affords an idea of the growth of the division's work, its cost and the benefits that have accrued.

The report shows that business has increased steadily in volume from year to year, with the result that last year was a record breaker along all the lines of its activity. The receipts from all sources during the year were $488,855.12, but in this connection it is interesting to note that only a very small portion of this large sum was collected in the form of fines. Oleomargarine licenses netted $461,390.01 and cold storage licenses $3,300, a total of $464,690.01, leaving the receipts from fines but $24,165.11.

With comparatively few exceptions the fines were imposed for local violations. The enforcement of the laws during the previous years had already brought about the breaking up of wholesale fraud and adulterations of staple prepared foodstuffs and the fines imposed in connection with this class of goods are negligible in number.

Commissioner Foust was first appointed to his present position by Governor Stuart in 1907. At that time 30 per cent of all the prepared foodstuffs on the market was adulterated; now adulterations are rarely found and the prosecutions are chiefly directed against local violators selling such articles as ice cream, milk, vinegar, sausage and other meats and against cold storage products.

During 1918 samples collected by the agents and analyzed by the chemists of the bureau totaled 6,643, while the grand total for twelve years is 84,661. Cases terminated last year amounted to 1,133 and for twelve years 11,101.

During the first two years of Mr. Foust's administration the bureau was not self-sustaining; now the receipts are more than six times the amount of the expenditures, the former being $488,855.12 for last year and the latter $81,586.31. In the twelve-year period the receipts have aggregated $2,408,957.89 and the expenses have been $952,325.91. The receipts are deposited with the state treasurer for the use of the commonwealth and the expenditures are provided for by appropriation.

The laws placed under the dairy and food commissioner for enforcement are police regulations, nothing more, nothing less. The quality and quantity of food for eight millions of people are important and to keep the food pure and free from adulterations and to prevent misbranding in essential; this is the work of the dairy and food commissioner, according to Mr. Foust.

The following comparative statement, covering the years 1907 to 1918, inclusive, has been prepared:

| Year | Samples Analyzed | Cases Terminated | Receipts | Expenditures |
|---|---|---|---|---|
| 1907 | 7,400 | 664 | $ 55,732.63 | $ 78,455.88 |
| 1908 | 8,300 | 300 | 54,580.62 | 69,968.20 |
| 1909 | 6,200 | 797 | 86,594.15 | 83,700.00 |
| 1910 | 5,594 | 667 | 110,802.95 | 79,661.65 |
| 1911 | 8,200 | 1,029 | 120,993.48 | 83,083.15 |
| 1912 | 7,204 | 1,049 | 136,125.49 | 81,858.55 |
| 1913 | 6,846 | 1,025 | 173,789.76 | 75,587.12 |
| 1914 | 4,827 | 1,010 | 225,910.78 | 73,271.41 |
| 1915 | 8,939 | 1,165 | 279,055.40 | 85,901.36 |
| 1916 | 5,807 | 1,093 | 303,367.03 | 77,931.97 |
| 1917 | 8,701 | 1,169 | 373,150.48 | 81,320.31 |
| 1918 | 6,643 | 1,133 | 488,855.12 | 81,586.31 |
|  | 84,661 | 11,101 | $2,408,957.89 | $952,325.91 |

This table shows that the receipts for the year 1918, which are deposited with the state treasurer for the use of the commonwealth, were $407,268.81 in excess of the expenditures, which are provided for by a special approximation, and that for the entire period of twelve years the total receipts were $1,456,631.98, in excess of the expenditures.

## Swift & Co. Gives Annual Report

Swift & Company's financial statement for the fiscal year ending November 2, 1918, was given out at the thirty-fourth annual meeting on January 9, 1919. The report shows that the year of 1918 shows the largest output in the history of the company, and that this year shows that this organization is now second only to the United States Steel Corporation in volume of business.

The total sales volume for the year was $1,200,000,000, on which the profit amounted to $21,157,277.44, or 1¾ cents per dollar of sales, and which when applied to the tonnage, amounts to less than ½ cent per pound—a margin that cannot be said to cause high prices, for a profit of a fractional cent per pound has no appreciable effect on the price.

Another point is that the results represent a full year of operations under the regulations of the Food Administration. Under these regulations the earnings on products obtained in the slaughter of cattle, calves, sheep and hogs were limited to 9 per cent on the capital employed (being based on pre-war earnings), and it was further specified that the 9 per cent profit on capital employed in that section of the business must not exceed 2½ per cent on the sales. The published statement of results show that the earnings under this particular regulation were well within the limitations, being for the year 7.57 per cent on capital employed, or 2.04 per cent on the sales—before deducting interest on borrowed money.

The extent and importance of the business of Swift & Company is also brought out by a consideration of the enormous amount of capital required to conduct the business. On November 2, 1918, the assets totaled over $450,000,000. In this figure $179,000,000 alone represents inventories. A further $105,000,000 represents current accounts receivable.

Slaughtering operations of Swift & Company in the United States and Canada amounted to over 15,000,000 head, a little over half of this number being hogs.

During the year Swift & Company alone shipped 760,000,000 pounds of meat and meat products to the American Army and Navy at home and abroad and to the Allied nations for their armies and their civilian populations.

## Armour & Co. Issue Statement

Armour & Company's financial statement issued recently asserts that food prices were so burdensome during the past fiscal year that profit margins were almost wiped out and despite a record volume of business—$861,000,000 in this country and for export—earnings were much less than the sum fixed by the Food Administration as being fair and proper.

The net income for the year was $15,416,973.13, representing a return of 14.7 per cent on common stock after making provision for dividends on preferred stock. Excepting $2,000,000 which constituted the dividend paid to common stockholders, the year's earnings were reinvested in the business.

On the average net capital invested in all lines, the profits represented a return of 9 per cent. The income from the meat food business—limited by the government to 9 per cent—fell way below that figure to about half what was authorized. The net profit on total volume of business, including everything sold by the firm, amounted to 1.8 cents on each dollar of sales.

## Government Survey on Food

The commercial stocks of wheat reported in a survey made by the Department of Agriculture for December 1, 1918, amounted to 219,434,832 bushels. These holdings, by 10,669 firms—elevators, warehouses, grain mills and wholesale dealers—were more than twice as large as the stocks held by the same firms a year earlier, the actual percentage being 206.1 per cent of the 1917 stocks. The figures refer to stocks actually reported and do not represent the commercial stocks of the country, nor do they include stocks on farms.

*Visible Supply Figures Compared*

The commercial visible supply figures, as published by the Chicago Board of Trade for the nearest date (November 30, 1918) show 121,561,000 bushels of wheat as against 21,031,000 bushels a year ago. Corresponding Bradstreet figures for 1918 show 131,584,000 bushels as against 29,633,000 bushels for 1917. As compared with the same date of last year, these figures, as well as those obtained by the more extensive survey, show a very great relative increase in commercial stocks of wheat on December 1, 1918.

*Other Cereals, Flour and Cornmeal*

The commercial stocks of other cereals reported for December 1, 1918, according to the department statement, were as follows: Corn, 13,193,789 bushels; oats, 61,670,351 bushels; barley, 74,400,787 bushels; rye, 13,936,010 bushels. These stocks represent the following percentages of the corresponding stocks on December 1, 1917: Corn, 129.0 per cent; oats, 94.6 per cent; barley, 110.8 per cent; rye, 154.2 per cent.

The commercial stocks of flour and cornmeal, as reported for the survey were: Wheat flour, white, 6,397,490 barrels; whole wheat and graham flour, 133,189 barrels; rye flour, 266,107 barrels; corn flour, 51,676,911 pounds; cornmeal, 72,825,916 pounds; buckwheat flour, 13,548,309 pounds; mixed flour, 26,623,397 pounds. These stocks represent the following percentages of the stocks on hand a year ago: Wheat flour, white, 170.4 per cent; whole wheat and graham flour, 249.1 per cent; rye flour, 215.8 per cent; cornmeal, 227.8 per cent; buckwheat flour, 220.4 per cent; mixed flour, 243.5 per cent.

*Stocks of Selected Commodities*

Elevators, warehouses, and wholesale dealers reported stocks of beans amounting to 7,285,713 bushels, while wholesale grocers and warehouses reported the following commodities and in the amounts indicated: Rice, 49,998,810 pounds; rolled oats, 80,489,666 pounds; canned salmon, 96,893,624 pounds; canned tomatoes, 245,489,204 pounds; canned corn, 111,336,010 pounds; sugar, 164,356,634 pounds. These stocks represent the following percentages of the corresponding stocks on hand December 1, 1917: Beans, 154.5 per cent; rice, 62.6 per cent; rolled oats, 165.7 per cent; canned salmon, 94.3 per cent; canned tomatoes, 140.3 per cent; canned corn, 133.5 per cent; sugar, 125.0 per cent.

Stocks of condensed and evaporated milk were reported by condensaries, cold storages, warehouses and wholesale grocers, as follows: Condensed milk, 49,878,129 pounds; evaporated milk, 146,757,968 pounds. The holdings of condensed milk reported for December 1, 1918, represented 119.7 per cent of the stocks held by the same firms a year earlier, while the holdings of evaporated milk represented 72.8 per cent of the December, 1917, stock.

### ADVANCED RATES IN EASTERN TERRITORY

Information has been received that the U. S. R. R. Administration has authorized the carriers in the territory east of Milwaukee and Chicago to advance the present freight rates on grain and grain products two cents per hundred pounds, effective February 1, 1919.

Under this order, the new reshipping rates from Milwaukee or Chicago to the principal eastern points, will be as follows:

| | Grain | | Gr. Products | | By-Products | |
|---|---|---|---|---|---|---|
| To | Dom. | Exp. | Dom. | Exp. | Dom. | Exp. |
| Boston ..... | 28.5 | 25. | 29. | *27. | 30.5 | 30.5 |
| New York. | 26.5 | 25. | 27. | *27. | 28.5 | 28.5 |
| Philad'phia | 24.5 | 24. | 25. | 25. | 26.5 | 26.5 |
| Baltimore . | 23.5 | 23.5 | 24. | 24. | 25.5 | 25.5 |

*Flour, 1 cent less.

The Blommer Company, distributers of green coffee, and the Blommer Ice Cream Company, both of North avenue and 15th street, Milwaukee, Wisconsin, have recently been penalized by orders issued by the Food Administration.

The Blommer Company showed general disregard to the Food Administration rules and regulations and a lack of co-operation.

The Blommer Ice Cream Company made false sugar reports and had an excess supply of sugar on hand. After the Food Administration made a request for curtailing the output of ice cream the company made 6,000 more gallons in August, 1918, than in the same period of 1917, thus ignoring the order to reduce. July and September also showed an increase over the previous year. The firm practically admitted that they were not living up to the Food Administration's instructions.

An unlimited revocation order was issued against the Blommer Company, and licensed dealers are further ordered not to deal in licensed commodities with the Blommer Ice Cream Company until February 24.

DR. PRICE'S VANILLA
Is made from the
Finest Mexican Vanilla Beans
*The same high quality is found in PRICE'S*
Lemon, Orange, Raspberry and Strawberry
Pure Fruit Extracts
Price Flavoring Extract Co.
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SOMETHING NEW
*Samples Gratis*
GRANULATED BORIC ACID
Will dissolve more readily than any form hitherto introduced
- - When ordering, specify - -
20 Mule Team Granulated Boric Acid
U. S. P.
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CANNED SALMON
ALL GRADES
ALL SIZES
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KELLEY-CLARKE CO.
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**BON BON**
*The Original Alum Baking Powder*

Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.

**J. C. Grant Chemical Co.**
**East St. Louis, Ill.**

**Illinois Vinegar Mfg. Company**

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Manufacturers of High Grade
**DISTILLED VINEGAR**

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Investigations to Improve Processes. Sanitary Surveys.

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**BUNTE** Dutch Process **COCOA**

Carefully selected Cocoa Beans manufactured into cocoa by the Bunte Dutch Process make Bunte's the utmost in Cocoa goodness.

BUNTE BROS., CHICAGO, ILL.
*Established 1876*

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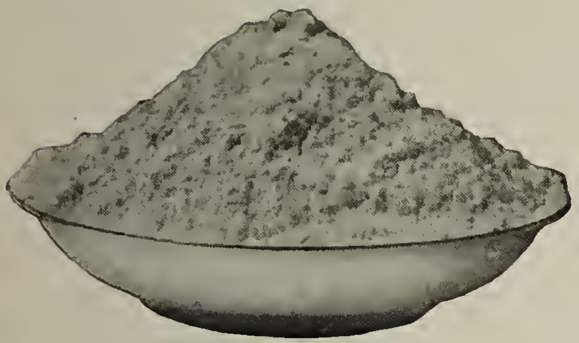
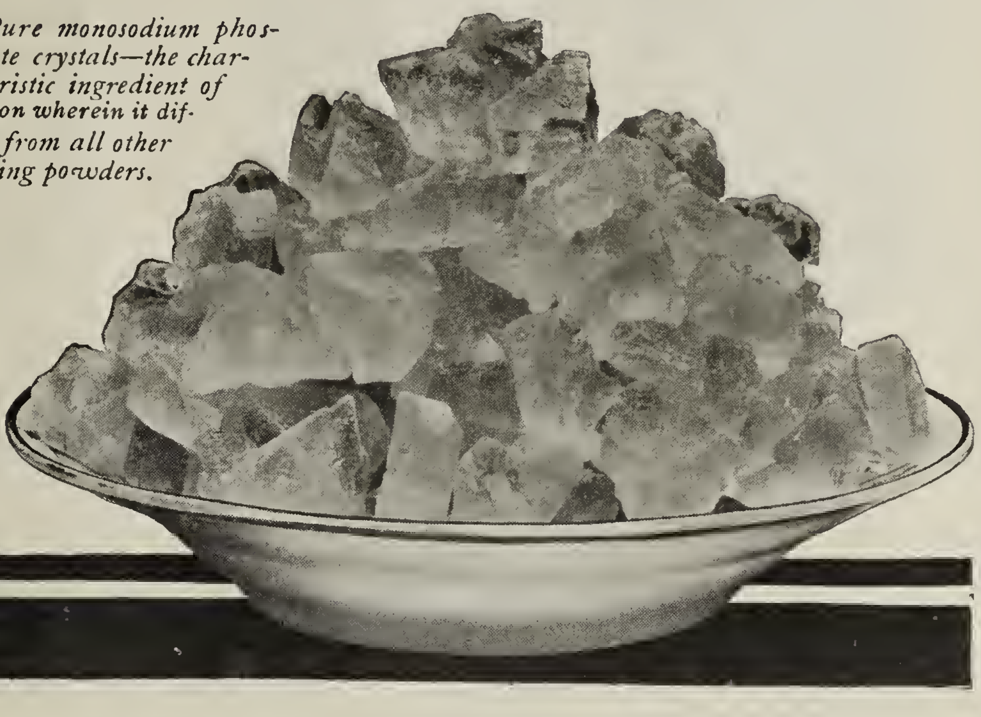
RYZON

THE PERFECT BAKING POWDER

*Bi-carbonate of soda, used in all baking powders.*



*Corn starch, used in nearly all baking powders.*



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The formula for Ryzon, produced in our laboratories by skilled chemists, uses pure crystallized monosodium phosphate as the acid ingredient. By patented processes of manufacture, Ryzon is so stabilized as to be always efficient and dependable—making it truly "The Perfect Baking Powder."

Ryzon is 40c a pound. The new Ryzon Baking Book (original price $1.00), containing 250 practical recipes, many of conservation value, and others easily adapted to present day needs, will be mailed, postpaid, upon receipt of 30c in stamps or coin, except in Canada.

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**FOOD DEPARTMENT**
**NEW YORK**

Suppose You Found 3 Dollars
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*You May Find It There in This Way*

The 32-cent package of Quaker Oats contains 6,335 calories—the energy measure of food value.

See the table below.

See what those same units cost you in other common foods.

Note that each package, if used to displace meats, eggs and fish saves you about $3.

| Cost of 6335 Calories | |
|---|---|
| In Quaker Oats | $0.32 |
| In Round Steak | 2.56 |
| In Veal Cutlets | 3.56 |
| In Eggs | 4.25 |
| In Halibut | 3.31 |
| In Salt Codfish | 4.87 |

So the $3 is there—in real money saving—the same as though it came in bills.

☞ Here is what the energy value in one Quaker Oats package costs in other foods at this writing.

That means that ten breakfasts of Quaker Oats costs less than one average meat breakfast of the same energy value.

But the difference is greater than that.

Quaker Oats is vastly better food. It is almost the ideal food—the complete food. It is the food of foods for children and for workers, regardless of its cost. Remember these facts when you plan your meals.

Quaker Oats

*Extra-Flavory Flakes*

Quaker Oats is oat flakes of super-grade and flavor.

It is flaked from queen grains only—just the rich, plump, flavory oats. We get but ten pounds from a bushel.

You get this luscious oat food without extra price when you ask for Quaker Oats. That is too great a fact to forget.

Two Sizes: 12c to 13c—30c to 32c
*Except in the Far West and South*
*Packed in Sealed Round Packages with Removable Covers*
(2068)

THE AMERICAN FOOD JOURNAL

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PUBLISHER

H. E. BARNARD, PH.D.
EDITOR

WM. G. DAVIES
NEWS EDITOR

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## Where and Why We Are

As the last issue of the American Food Journal went to the post office and was on its way to each of you—readers and advertisers—with a few spare minutes in which no pressing duties crowded, my thoughts turned upon the subject that is ever uppermost in my mind, "How can I make the next issue one that will be read and remembered?"

And then came the thought, "What is there, or should there be, in each issue to make it valuable to each of you?"

In trying to answer this in my own mind my thoughts traveled back over the history of this magazine and I took from my bookcase shelves the bound volumes of the thirteen years; the volumes that contain the articles, statistics, the pictures and the stories of what was transpiring in the food world at the time that each issue went to press; the articles, statistics, pictures and stories that have each played its part in building up the clientel which this publication enjoys.

And in the articles and stories that passed under my eyes, as I turned page after page, I saw more than the printed words. In fact, there seemed to be written between the lines the stories of the various characteristics—indeed, the composite character—of the readers and patrons of the Journal. I seemed to see the substantial, hard-headed business man scanning its pages for news that would be of value to him in conducting his business; the altruistic dietitian reading the stories of new foods and newly discovered food value of old foods, so that he or she should be better prepared to give to others the best advice on what to eat and how; the food control official seeking for ideas of how other officials were doing their work and for inspiration to continue the battle against the greatest enemy of the human race—bad food or fraudulently-labeled food; the physician and the educator looking for the latest scientific discoveries in the food field, and the lawyers who were seeking the latest legal and legislative developments in matters of food.

I saw also the wholesale and retail grocerymen and many of the type of people who cannot be classified, except under the broad title of "just plain, progressive citizens," who wanted to be "up" on the latest developments in the greatest of all mundane subjects.

And the thought came to me that these—the Journal's followers—are really the worth-while people of the country; the people who are serious minded and who have a purpose in life.

As I thought of these people, I thought of the responsibility on the men who are conducting this magazine and the necessity of always giving something in its pages that will furnish food for hard thinking and for clear-cut, straightforward acting.

This journal was started as the need for pure food laws and broader and more exact information along food lines became apparent only to a comparatively few people. For thirteen years it has carried on this fight for better laws and broader dietetic knowledge. This journal, backed up by some officials and a few scientists, fought almost alone at first, but as the knowledge of the importance of knowing spread, others

The Spread for Bread

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are you selling "Swift's Premium" Oleomargarine?

The rising cost of food has further increased the popularity of "Swift's Premium" Oleomargarine.

The housewife has discovered in it a pure, wholesome and nutritious product containing all the essential food elements and one that does not decrease the former standard of living.

"Swift's Premium" will build up for you a good, steady, profitable trade.

It will pay you to take out a license if you do not have one.

The profit on three 30 lb. cases will practically pay for the license.

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Swift & Company

came with us, and today we find that many so-called "just plain citizens" who are neither scientists nor food officials are reading our pages and, frequently, writing to us for more information along certain lines of food.

By printing some articles which are not strictly scientific and not technical we are striving to keep the interest of these and get others of this class interested in the cause of pure food. And we shall continue along this line while still publishing the things that will be of interest to our more scientific and more technical friends.

The last issue, and this one, carries what may seem to some of our new subscribers a preponderance of legal articles and notes, but that is merely because at this time, when nearly all of the state legislatures are in session and each, recognizing the importance of food legislation, is trying to improve the conditions in his particular community by passing laws to correct some evil which he sees. But we feel that the legal side of the food situation should be of interest to even the plain people, and there is a chance in these pages for him to become a better citizen by knowing more of what legislation has been or is going to be enacted in this field.

In our next issue, the March number, you will find more about the proposed or enacted laws; an article telling about the new industry which centers about the age-old product, "Honey"; an article on the problems facing the dairymen, and many other interesting facts about food.

C. A. Patterson,
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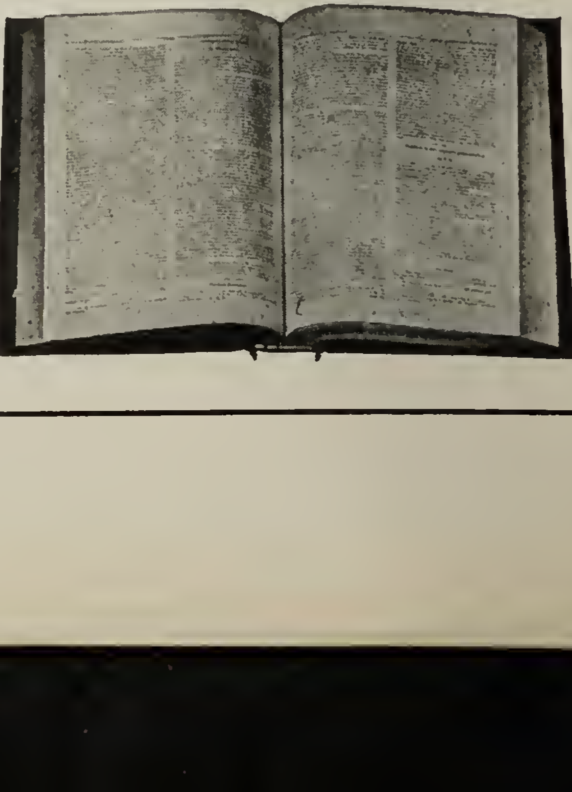

## Food Administration Suspends Armour Branch

THE Food Administration on February 13th announced that the licenses of Armour and Company, covering their transactions in butter, eggs and lard, at their Buffalo branch only, had been revoked for thirty days for failure to mark butter invoices and containers with the words "Cold Storage," as required by the Food Administration rules and regulations.

The revocation became effective at the close of business Saturday, February 15, 1919. The revocation order was issued upon the recommendation of J. B. Stafford, local Food Administrator at Buffalo, and after Armour and Company had been heard on appeal to the Enforcement Division of the Food Administration at Washington. The decision of that division, sustaining the revocation, is as follows:

"This is not a profiteering case. The margins of profit were within the Food Administration allowance for cold storage butter.

"Our rule, however, requires that invoices of butter, which has been in storage more than thirty (30) days shall be marked 'Cold Storage.' This branch has disobeyed this rule consistently, marking no invoices 'Cold Storage.' Instead, it chose to mark invoices of butter stored from one to three months as 'Short Held Storage,' and of butter stored more than three months, simply as 'Storage.' Certain invoices were not marked at all.

"This was a violation, long continued and, in our judgment, deliberate. In addition, the evidence indicates, although there is a conflict of evidence on this point, that 'Short Held Storage' in the butter trade means butter which has not been stored more than four or five weeks, so that the 'Short Held Storage' marking seems wrong apart from our rule.

"In the most important transactions the containers were marked 'Cold Storage,' but in 186 small sales the containers were broken and small cartons sold without any marking, even on the container.

"This branch was acting absolutely contrary to instructions from headquarters, which instructions explicitly stated our 'Cold Storage' rule, and directed compliance. So far as we can judge, the offense was wholly the fault of the Buffalo management.

"The sales were to distributers and there is a conflict of evidence as to whether purchasers were deceived. Conceding that in many cases they were not deceived, nevertheless such a practice, if permitted, would have made it easier for unscrupulous distributers to deceive their own customers or our inspectors.

"The licenses of this branch covering butter, eggs and lard are revoked, to take effect as of the close of business Saturday, February 15, 1919, to be restored in thirty days from date of revocation, or earlier, in discretion of J. B. Stafford, local Food Administrator, at Buffalo, New York. All details with respect to dealings necessary for preservation of food products, or otherwise, during suspension to be in Mr. Stafford's discretion.

"In case of withdrawal of any of the commodities named, from license during the thirty day period, the order will continue to be obeyed regardless of the withdrawal."

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# Do They Destroy Food to Force Up the Prices?

## One of the Most Popular Stories As to the Cause of the High Cost of Living Is Traced to Its Source

*By William G. Davies*

"WHERE did you get your information?"

Innumerable "Four Minute Men" took unaccountable hours of the American Public's time during the period of the war to teach loyal citizens to ask this question whenever they heard one of the stories of American disaster or of public official's treachery. I can't tell you just how many stories that were made in Germany were branded for their real nature by this method, but we all know that the psychological effect was good and old Dame Rumor's credit rating received a hard jolt by the asking of this simple question.

### Rumor Persistent

But Dame Rumor did not pass out when her German story stocks slumped on the American market, and now that the mind of the great public has been largely freed from the fear of the German tales the unscrupulous old gossip has turned her skill to the devising and circulating of other stories to disturb the peace which we thought had come with the signing of the armistice and having linked arm with His Majesty, the High Cost of Living, she proceeds to make us doubt every man who has anything to do with the growing, or marketing of the thing that we all have to have—food.

Some of the stories of food profiteering may be true. Certainly many of them are not. But in either case justice demands that in fairness to the men who (taking Uncle Sam's own word for it) offered themselves and their businesses to the solution of the problem of feeding the great armies of the allies and who did not count the cost when so doing, the American people should persist in asking the question, "Where did you get your information" whenever some wild-eyed story concerning the food profiteers is whispered about.

And so, with this thought uppermost in mind, the writer started out to run down one of Dame Rumor's favorite yarns; a story that has been printed in the newspapers from the Atlantic to the Pacific ocean and which has been rolled about from tongue to tongue so often and so persistently that even the usually cautious-minded persons believe it and the legislators in many of our states are solemnly drawing up laws to meet the condition which this rumor says exists. The story is the one that everybody has heard, namely:—That untold quantities of food are destroyed every month by grasping food dealers for the purpose of keeping the prices high and thereby netting great wealth to the food dealers (or destroyers).

### Food Official Denies Truth of Rumor

**"We have traced many rumors of food destroyed for the purpose of keeping up prices, but have never found a single case where food had been destroyed or willfully permitted to go to waste for the purpose of forcing prices up."—Statement of G. H. Powell, member of the Food Administration at Washington.**

### The Reporter Passes

"Where did you get your information?" was asked of the newspaper reporter who had written one of the newspaper stories. Now I can say that a newspaper reporter is just as honest as the policy of the particular paper that he represents and seldom does he write a story (that is a news story) "out of his head." Almost always he tells what has been told to him. Some times he misunderstands and misquotes but more often his informer, either purposely or carelessly, mis-states.

So the newspaper reporter's answer took the story back to some business man or minor public official. When the business man or small official was questioned he at first denied having given the story, then he admitted having had some such talk with the reporter and finally he stated that he guessed he did say what the reporter said he said, but that he was merely telling what someone else told him that he had heard. And so it went along the interminable trail of hearsay and rumor.

Despairing of ever getting to the original source of the story by this method the writer then appealed to the officials of the Food Administration, who have records and statistics at hand to show where all food originated and where it went during the period of the war.

### Officials Deny

"We have run down hundreds of such stories," said one of the Food Administration officials, "and we have never found a single case where food was destroyed or willfully permitted to waste so as to produce a seeming shortage or affect the price."

This seemed convincing enough, especially when backed up by government figures showing the vast amount of food that was produced and shipped during the war and the comparatively small amount that could have been wasted or destroyed. Indeed, so small was the amount unaccounted for in the government figures that even if it had all been deliberately destroyed the price would have been affected hardly at all.

But the so-called "Commission Merchant," the man through whose hands pass most of the perishable food that is consumed by the public of this country and,—during the war, the most of the food consumed by the people in Europe as well, was still to be heard from, so the trail was followed down into South Water Street, Chicago, the "Food Funnell of the World," where over three hundred million dollars' worth of highly perishable food is bought and sold every year.

To the lover of old-fashioned take-a-chance Americanism a talk with the operators of South Water Street is a pleasure and an inspiration. For the most part these men are born to the business or they came into it so young that they can't remember of ever having done anything else. Their knowledge of food is profound and of the kind that cannot be gleaned from books because no book or magazine could be printed fast enough to keep up with the ever-changing food conditions of the world. They know how many pineapples were grown in Hawaii last year and whether it hailed on the fruit of Australia yesterday morning. If the onions in Texas were flooded or the hens in Idaho got cold feet the night before, the South Water Street man knows it and has taken this fact into consideration in his daily food gamble almost before the owner of the onions or hens is aware of the fact.

He knows before you do what you will want to eat for breakfast tomorrow morning and then he gambles with the weather and with traffic conditions, as to whether or not he can get you what you want at the price you are willing to pay. If he has guessed right on the weather conditions and if wrecks or other traffic troubles do not interfere you get your grapefruit, your cantaloupe or fresh vegetables and he makes a profit. If any one of these elements goes against him you will eat pancakes and sausage for breakfast and he will lose not only the commission but, often times, take a greater loss because he has purchased the fruit or vegetables out-right or guaranteed a price to the producer, which market conditions the day later than his plans had been made for, make it impossible to get.

There are two kinds of merchants on South Water Street. The one is the commission merchant, pure and simple, who takes goods on consignment and gets a commission on the sale. The other, who is the big operator, actually finances the growing of the food, and agrees to buy it at a predetermined price or guarantees the sale at a certain price and takes his commission only after the sale is consummated and the goods are paid for.

Before going farther with the story of their methods of doing business let me say that the government figures now being compiled will show that for the year of 1918 the net earnings of the perishable food distributors of this country will not exceed one and one-half per cent, or at the very most, two per cent. Because of the touch-and-go nature of the business hard and fast government rules were almost impossible and these men were, to a large extent, placed on their honor by the food officials as regards the operation of their business. Bear in mind the fact that the nature of the goods which they deal in makes long time holding almost impossible. Nature has placed limitations on the length of the time which perishable fruits and vegetables can be kept safely in storage and most of their product must reach the consumer in a remarkably short time after being first loaded on the cars at the producing point.

You may at this point raise the objection that the so-called net earnings do not tell the real story of profits because you know of many corporations whose stated earnings are small but the big men in the business draw huge salaries which are charged against the expense of operation. But this does not seem to be the case on South Water Street. These men are chance takers and their money on the take-a-chance make their money on this basis. I know that the head man of one of the biggest operating concerns on the street draws a salary per year which is smaller than the salary of some editors, advertising men and bank cashiers that I know of, and is under $10,000.

It is an old saying on the street that no man ever accumulated a million dollars in the produce business. Some of them are very wealthy but they will show you how they took a flier in mining, or oil or in real estate with their produce earnings and made the large fortune which they now enjoy.

The fact that the big operators in produce practically finance the growing of the commodities which they sell is not generally known and yet that is a fact that can be easily proved. In many cases their invest-

South Water Street—The Food Funnel of the World

One of the Fruit Exhibits on the Street

ment is as great as that of the grower and their risk is on a par with their investment.

As I write this I have before me a contract loaned to me by one of the operators and which is typical of the contracts made for many different kinds of produce in many different parts of the country. The figures vary for different products and for different localities but the difference in risk is slight.

### The Contract

This contract is between the operating company and some Japanese cantaloupe growers of California, who rent (not owned) 50 acres of land. In this contract the operators who are called The Distributors become the sole distributors of the produce grown on this farm, and are to receive 16 per cent of the gross amount for which the fruit sells on the market. There is no stipulation that the distributor is to receive anything if the crop does not develop or is not sold. Before there is a single seed planted the distributor agrees to loan the farmer or grower $20 per acre as an advance on the crop, $10 payable on the signing of the contract and $10 when the seed has been put in. He must furthermore sell the grower the seed for $1.75 per pound, nails at $6 per keg, tissue wrappers at $7 per thousand, and crates at 20 cents each. The crates include registered labels. The distributor must further agree to furnish the necessary lumber to load and ventilate the cars, laborers to load the car at the distributor's expense, likewise inspectors, etc., and guarantee the freight charges. He further guarantees that the net result to the grower from the sale of the product shall not be less than $1 per crate.

### Makes Advances

In other words, the operator has actually spent or pledged his credit to the extent of about $2.75 per crate before the cantaloupes get to the market. This means that if the market price is $3.35 per crate his gross profits will be about 50 cents per crate. But as most of these cantaloupes must be sold by the operator through subagents who get one-half of the commission or 8 per cent of selling price, the operator's gross profits are reduced to 25 cents per crate or 8 per cent after he has paid himself back for the advances.

It can readily be seen that when you deduct from the gross profit the cost of inspection and handling, the interest on the money advanced, the office overhead, etc., the net profit cannot be so large and the government figures of less than two per cent, or indeed, Secretary Tidwell's figures of one and one-quarter per cent net earnings, seem reasonable. Especially when you consider the fact that every year there is bound to be some loss either at the source of production by the loss of crops because of weather conditions or labor troubles, the loss on the railroads from weather conditions or tieups and failure to guess the market correctly.

Some of these operators, because of the character of the contracts which they enter into, are compelled to guess the market five to seven months in advance.

So, getting back to our original proposition of the story of wanton destruction of food for the purpose of controlling prices, if a distributor controlled sufficient number of cars of a certain kind of produce so as to practically corner the market the perishable nature of the goods would compel him to throw his holdings into the market in a very short time and if the market could not absorb it all the price would drop very materially. If, on the other hand, the distributor took the action which newspaper stories and public opinion generally credits him with taking and destroyed or permitted to waste several car loads of produce so as to control market prices by producing an apparent shortage, he would destroy in each car load his profits on so many other car loads that he could never hope to win out. Produce could not possibly soar high enough in the short time given him to unload to make it worth his while, because it is the history of the produce business that there is a limit beyond which produce will not sell. Any attempt to force the price above that limit simply results in the public's failure to buy. Eggs will sell readily up to 70 cents, but beyond 70 cents they can stay in the distributor's hands, as far as the general public is concerned.

But rumors are harder to down than real facts, and undoubtedly when the next sudden cold snap causes some potatoes to freeze in the cars, and when the potatoes are dumped on the ground by order of the food control official or the health officer, or because the produce man knows that is the only thing to do with frozen potatoes, someone will start a story that, like the story of the six crows, will grow and grow until it gets into the newspaper as a fact, vouched for by some irresponsible person who heard someone else talk.

So keep in mind the question, "Where did you get your information, gentlemen?"

# The Importance of Minerals in the Diet

*By Alzira W. Sandvall S. B.*

Health Instructor on Foods, Massachusetts State Department of Health.

FROM 5 to 6 per cent of all the solid matter in the human body is made up of the following minerals in varying amounts: sodium, potassium, calcium, magnesium, iron, phosphorus, chlorine, sulphur, silica, flourine and iodine. When planning our meals, then, we must make ample provision for these inorganic substances. A diet not containing a suitable amount of them will be entirely inadequate. They yield no heat and little, if any, energy, but are so important that if the supply is entirely cut off death will take place in one month. They are the chief building materials of the bones and teeth, are absolutely indispensable in the blood, are found in every tissue of the body, and, in solution, in varying amounts in the digestive juices and all the vital fluids of the body.

Nearly all the minerals are found in the blood, iron forming the chief constituent of the red coloring matter. Sodium, chlorine and potassium are necessary in the digestive juices, while chlorine also helps to keep the blood alkaline. Calcium, phosphorus, magnesium, silica and fluorine build up the bones and teeth, silica serving too, in combination with sulphur, to keep the hair in good condition. Sulphur is found in combination with other minerals in all the tissues and secretions of the body. Potassium plays a big part by keeping the muscles soft and pliable, is needed by the nervous system, and is absolutely essential in the diet of growing children. Fluorine is found in the whites of eyes, while iodine is essential to the thyroid gland, and is believed to increase the resistance to disease.

It is easy to see, then, that any lack of these important food substances will be followed by serious results to the health of the individual. Such a lack is shown in the lusterless eye, pale cheeks, lack of energy, anæmia, rickets, hardening of the arteries, etc. To counteract such lack we find people taking iron pills and tonics of various kinds. These people should make a careful study of their diet to see if they are including in it foods rich in minerals.

Fortunately, all foods, with the exception of the pure sugars, starches and oils, contain some mineral substances, so that any ordinary mixed diet generally furnishes the body with a sufficient amount.

Those foods especially valuable for their mineral content are fruits, both the fresh and the dried; vegetables, especially the green vegetables; eggs, milk and cereals (the unprepared cereals, like oatmeal, corn meal, etc., containing more mineral substances than the "ready to eat" cereals, like corn flakes, etc.). Milk is rich in the lime salts, which are essential for the proper development of the teeth. Natural brown rice is a valuable source of iron, while very little mineral is present in the ordinary polished rice used by most housewives.

It is important not only to include foods rich in minerals in the diet, but to cook them so that none of the mineral will be lost. When we pare vegetables, cook them in water, or allow them to soak in water and then throw away that water we are wasting the most valuable part of the vegetables, that is, the minerals, because minerals are salts and soluble in water.

It is best, then, if we wish to safeguard the health of our families, to provide liberal amounts of fresh fruits, vegetables, cereals and milk, doing so, if necessary, by restricting the amounts of sweets and meats. It may be quite as necessary to teach our families to eat the foods that the body requires, for we sometimes find that even when a good diet is provided some member of the family will refuse one food or another, with no thought of its real function. We must learn to eat to live rather than to live to eat.

## Foods Rich in Minerals

| MINERALS. | Foods where found. |
|---|---|
| Chlorine, . . . | Eggs. |
| | Lentils. |
| | Common salt. |
| Sulphur, . . . | Eggs. |
| | Beans. |
| | Peas. |
| | Lentils. |
| | Cheese. |
| | Milk. |
| | Meat. |
| | Fish. |
| Silica, . . . . | Bran of wheat. |
| | Yolk of eggs. |
| | Peas. |
| | Beans. |
| | Strawberries. |
| | Cereals. |
| | Cherries. |
| Fluorine, . . . | Vegetables. |
| | Cereals. |
| Iodine, . . . | Fish. |
| | Kelp. |
| Sodium, . . . | Common salt. |
| | Baking soda. |
| | Apple. |
| | Egg. |
| | Figs. |
| | Strawberries. |
| Potassium, . . | Egg yolk. |
| | Oats. |
| | Barley. |
| | Rye. |
| | Corn. |
| | Rice. |
| | Cherry. |
| | Peach. |
| | Gooseberry. |
| | Grape. |
| | Nuts. |
| | Peas, beans. |
| | Fruits. |
| | Vegetables. |
| Calcium, . . . | Milk. |
| | Parsnips. |
| | Carrots. |
| Calcium, . . . | Turnips. |
| | Egg yolk. |
| | Apple. |
| | Cereals. |
| | Asparagus. |
| | Spinach. |
| | Nuts. |
| | Radishes. |
| Magnesium, . . | Cereals. |
| | Bread. |
| | Milk. |
| | Fruits. |
| | Eggs. |
| | Nuts. |
| | Figs. |
| Iron, . . . . | Spinach. |
| | Egg yolk. |
| | Unpolished rice. |
| | Green vegetables. |
| | Apples. |
| | Beans. |
| | Peas. |
| | Lentils. |
| | Prunes. |
| | Gooseberries. |
| | Strawberries. |
| | Potatoes. |
| | Red meat. |
| Phosphorus, . . | Milk. |
| | White cheese. |
| | Carrots. |
| | Turnips. |
| | Cabbage. |
| | Potatoes. |
| | Peas. |
| | Beans. |
| | Lentils. |
| | Egg yolks. |
| | Cereals. |
| | Fruits. |
| | Nuts. |
| | Unpolished rice. |
| | Pork. |
| | Mutton. |
| | Calf's brains. |

# Dehydration As Practiced In Many Foreign Countries

## Ancient Egyptians and Chinese Have Known of Drying Processes for Many Centuries, Now Moderns Are Beginning to Learn

*By George Hilliard Benjamin*

**This is the second of a series of articles dealing with the subject of Dehydration. The first appeared in the December issue. Other articles describing modern processes will follow.**

DEHYDRATION as a means of preserving food has been practiced for at least six thousand years. The earliest known records of both Egypt and Asia contain references to dehydration. Dehydrated food has been found in the tombs of Egypt and in the bodies of mummies, and also in vessels of various kinds in the most ancient temples of China. It was practiced in Mexico before the time of Montezuma and in America before the discovery by Columbus. In short, it has been used by every nation at all times, and is still in use.

### Methods Differ

The methods of effecting dehydration in the several countries differ only in slight particulars, the difference relating more particularly to the preliminary treatment of the material, rather than to the step of dehydration. Dehydration, as practiced, consists in subjecting the body from which the water is to be withdrawn, to the action of heat, applied either as radiant heat, convected heat or conductive heat. Where radiant heat is used, the heat of the sun is utilized; convected heat through moving air currents, and conductive heat by conduction from some heated body, as for instance, say a heated floor to the material to be dehydrated.

The preliminary treatment differs in accordance with the material treated. In Egypt and China, the usual practice in the treatment of vegetables is to dip the vegetable into boiling water and leave it exposed for approximately two minutes. In Germany, where large quantities of potatoes are treated, it is the usual practice to subject the potatoes to the action of steam for approximately two minutes. In South American countries, particularly in those regions where the atmosphere is filled with flying pollen, flies and bugs of various kinds, the material to be dehydrated is subjected to the action of either a warm solution of salt and water, bicarbonate of soda and water, or nitrate of potash and water, or to the fumes of burning sulphur. Where these solutions or sulphurous acid gas is used, there is no preliminary cooking, as where boiling water or steam is employed. The solutions used vary in strength, according to the material treated. With certain materials, for instance, beets, it is the practice in many countries to use both treatments, i.e., the cooking, blanching or steaming and the solutions, and for the reason that beets are very firm in texture and do not dehydrate readily, nor if dehydrated, do they subsequently absorb water readily, when it is desired to cook them.

### Drying Meats

In the case of meats, the ordinary practice in all countries is to rub them with something which will keep the flies away and prevent bacterial action by deposited matters on the surface. In Egypt and China, it is the common practice to rub the meat with a weak solution of nitrate of potash. In certain sections of Egypt and in India, where the alkalies are not readily obtained, a solution made either of cinchona, or gentian in water is employed. A great number of solutions, all differing, have been used, each having, as before stated, for its object the driving away of flies and bugs and preventing the formation of bacterial molds.

Dehydration, as practiced in Egypt and China, consists in placing the material to be dehydrated, after the preliminary treatment, on trays or net baskets or spread upon floors, and subjecting the material to the heat of the sun and moving air currents, such as are normal in the localities where the treatment is carried on. The time of exposure depends entirely upon the weather conditions. Dehydration is usually effected in from eight to twelve days, although in some localities it requires three weeks. In parts of Egypt the material during the drying operation is agitated by shaking the trays or bags or by raking the material on the floor. In some parts of China the material is wet by sprinkling it with water, when half dry. In asking for an explanation of this step I was told that it facilitated the extraction of the moisture during the last step. That the fluid contained, as my informant expressed it, became too thick and would not come through the cell walls, and by thinning down could be more readily withdrawn.

### Drying in China

In some parts of China dehydration is effected by putting the material in rotating drums provided with inwardly projecting teeth and a current of heated air passed over it, the rotation of the drums with the teeth serving to agitate the material. In some sections of Mexico dehydration is facilitated by pounding and compressing the materials. The materials to be treated are placed in bags which are then violently brought in contact with the hard walls, after which they are put in presses and as much water squeezed out of them as possible, after which they are subjected to the action of the sun and heated air currents naturally produced.

In Germany, dehydration is effected in rotating drums, the German system being very much like the Chinese system, with the exception that Germany uses very much higher temperatures, the temperatures being often carried to 500°-700° F. In Germany very little attempt has been made, except during the present war, to dehydrate vegetables to be subsequently used on the table in place of fresh vegetables. Dehydration was practiced largely for the purpose of obtaining a product which could be converted into potato flour or fermented for the production of alcohol. Dehydration for table use involves stopping the process short of desiccation, in other words, the dehydration should not be carried beyond a point which will leave 10 per cent of the original moisture in the material treated. Every vegetable contains an enzyme. With the majority of vegetables 20 per cent of the normal water is required to make the enzyme active and thus produce fermentation. Dehydrated vegetables absorb water readily; consequently the dehydration must be carried to a point where the water left, plus the water absorbed, will not be sufficient to coact with the enzyme and set up fermentation.

## Meat Drying Difficult

The dehydration of meats has, as above stated, been practiced in all countries, but never with great success, that is, if success means the obtaining of a product which, when subsequently placed in hot water, will return to its normal condition, as regards appearance, chemical structure, taste, etc. The reason for the non-success is due to the fact that all meats contain blood, and all blood contains iron. When meats are subjected to dehydration, the oxygen of the air combines with the iron in the blood and forms a black oxide of iron, which discolors the meat, renders it dark brown, and gives it a slightly bitter taste. Further, all meats must be treated to keep off flies, and this treatment also affects the color and taste. Very many attempts have been made to dehydrate meats without altering their characteristics, but only lately has success been obtained. For "patent" reasons I cannot describe, at the present moment, the method which has been worked out for dehydrating meats.

As above outlined, it will be seen that ordinarily all the methods employed were in a sense natural, with the exception of those used by the Chinese and Germans, where rotary drums were employed. All the natural methods were open to the objection that they were dependent entirely upon the conditions of the weather. We have recently had, in this country, an example of what may happen. The entire prune crop of California was destroyed by rains, involving a loss of a great many millions of dollars. Very often, in Egypt and China, great losses and famines have resulted from failure to preserve the crop by the usual methods. These facts have led men scientifically inclined, to work out processes for artificial dehydration, and very rapid progress has been made within the last four years. It is now possible to dehydrate almost any material of vegetable or animal origin, solid or fluid, in less than three days' time. The product obtained is entirely uniform and may be restored to its natural condition, both as to appearances, taste and flavor, by inserting the material in warm water and allowing the product to absorb the water which was taken out of it by dehydration.

### Hawaiian's Dehydrate Sweet Potatoes

The sweet potato is an important source of food in the Hawaiian Islands. The plant is quite hardy and a good crop is usually secured. The high price of Irish potatoes during the present food shortage has in many cases forced the substitution of cheaper vegetables and the merits of the sweet potato are being recognized. Large plantings have been made and there is a possibility of temporary overproduction unless the crop can in some way be preserved.

Drying experiments were made with the sweet potato. It was found that the raw sweet potato in drying darkens a little, the dried product having a grayish-white color which is not unattractive. After soaking in water, the dried sweet potato can be boiled and served in the same manner as the fresh vegetable.. The peel can be easily scraped off after dipping the potato in boiling water about 30 seconds. By thoroughly boiling the whole sweet potato, then peeling, slicing and drying, yellowish gum-like slices are obtained which have quite a pleasant, sugary taste. There is a possibility of putting these slices on the market as a confection of considerable food value.

By grinding the dried product from the uncooked sweet potato, a grayish-white flour is obtained which can be used as a substitute for wheat flour.

The new methods may be generally described as artificial means for stimulating the action of nature, i. e., the application of radiant heat, the application of convected heat, the application of the variations of temperature occurring within a solar day, in practice has demonstrated that dehydration is more rapidly obtained if the body acted upon is allowed to rest between applications of the dehydrating air currents, or in other words, allowed to sleep naturally. In natural dehydration the sun is applied for a certain number of hours; then comes the night when it is cool, then again the application of the sun. So in artificial application, first the heat, then the cooling down, then again the application of heat accompanied by variations in humidity of the air currents, just as the air currents occurring in nature are varying in humidity during the different hours of the day.

The advantage of the artificial method over the natural method is its certainty of result. The product is uniform and may be stored for any length of time, provided care is taken to prevent the access of such an amount of moisture as would raise the total moisture above the point where coaction with the enzyme will take place. This would appear to be a problem easy of solution, but it is not, and for the following reason:

## Low Moisture Necessary

With dehydrated vegetables in mass, the moisture deposited confines itself to the upper part of the mass and does not disseminate through the mass. Consequently, while the total moisture per unit of weight would not be sufficient to raise the total moisture of the mass above the point where it would coact with the enzyme, it is sufficient to raise the total moisture of the upper layer above the point where it will coact with the enzyme, and consequently fermentation takes place, formation of worms, etc., which gradually work their way down through the mass, which destroys the whole mass. This fact accounts for the failure of a great many packers to produce a product which will keep. Paper cartons, tin cans, glass bottles and all sorts of receptacles have been used, but, as was stated to me by a wholesaler not long ago, without result, for you can never tell when you take a package down from the shelf whether it is going to be found wormy or not, and hence distributers and grocers cannot depend upon it, and the public will not take it. The difficulty in packing has been solved by adopting the method used by the Chinese in packing tea. Tea is the dehydrated leaf of the tea plant. The moisture is taken out of it by exposing it to heat and moving heated air currents. It is then packed in light wooden boxes lined with lead foil. The tea is packed hot, and when the box is full, the lead lining is turned down over the top of the tea and pressed down until there is no space remaining over it. It is then soldered so as to form a hermetically sealed or closed package. Tea will keep, and so will any other dehydrated vegetable when packed in this manner, for any number of years without the slightest fear of deterioration, provided, of course, that the boxes are kept so that the lead is not acted upon by gases or alkaline solutions, sea water, etc. Tea is transported thousands of miles across country, multiple thousands of miles across the ocean without deterioration, and as everybody knows, will keep for an indefinite time if protected from moisture.

As to the mechanical devices employed for dehydration, great numbers of patents have been obtained.

(Continued on page 38)

# Canners Start Big Movement for Product Betterment

## Pass Resolutions for Inspection and Standardization of Goods and Plan to Capture Foreign Trade

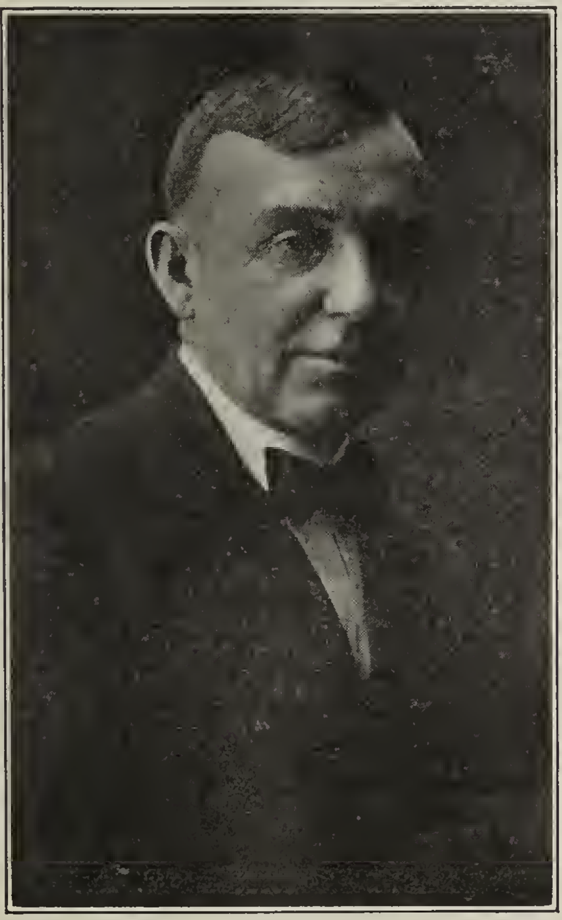
IF the food officials had attended the convention of the National Canners' Association held at Chicago, January 20-24, they would have found that not all the constructive food work is being done through the enforcement of pure food laws. On the contrary the canners realize the need of honest labels, full measure and sanitary packs as fully as do the most zealous food officials.

Indeed in some respects the canner is more concerned in the purity and honesty of his pack than the men who are enforcing the laws. With them the protection of the consumer against fraud and unfit food is merely a part of a day's work. It is the canners' whole existence. And the officials who had the pleasure of listening to the addresses made by President Burden; Senator Fernald; Judge Covington; F. A. Torsch, Chairman of the tomato section; J. W. McCall, Chairman of the Baked Bean section; Dr. B. J. Howard, the canning expert of the United States Bureau of Chemistry; Dr. W. D. Bigelow, Chief Chemist of the National Canners' Laboratory, and the other experts and Section Chairmen, were convinced both of the sincerity of the canners' purpose and his determination to counsel with every scientist and technologist who might help him to make a better product.

### Improve Pack

This determination to improve the quality of the pack by providing sanitary inspection at the plant as is so successfully being done for the sardine industry in Maine and California and for the fruit and vegetable packers in California was noticeable everywhere. The newly organized hominy section was just as strong in its demand for sanitation and quality as the tomato section. The baked bean section, the kraut section, indeed every branch of the industry represented at the great convention came out strongly in favor of the most rigid regulation of the sanitary conditions at the plant and the quality of the product in the can. To the food official this unanimity of purpose was the outstanding feature of the convention.

The canners were frank in expressing their belief that overproduction in 1919 would upset and perhaps seriously check the development of the canning business. Men from every section of the country and engaged in every branch of the canning business pointed out the fact that stocks of canned goods were accumulating on the grocers' shelves instead of being used on the consumers' table.



**Frank Gerber**
**Newly Elected President**

The price of canned goods, forced by the high cost of tin plate, of labor and above all, of raw material, has tended to check consumption. This check comes at a time when the contrary condition should prevail. After years of hard and earnest work, the canner has at length obtained the confidence of the consumer. His goods are no longer under suspicion; their food value is recognized. The economy of using canned foods instead of high-priced fresh vegetables during the winter months is unquestioned. The market should be open. With the lowering of prices which must come during the readjustment period every product of the canning factory should be in demand. And so, while recognizing the necessity for conservatism and the desirability of producing not more than an average pack the canners left their conferences full of optimism.

### Important Reports

Many important reports were made by special committees. The Foreign Trade committee after carefully considering the possibilities for increasing the demand for such products as canned milk, fish, pork and beans and fruits, recommended that a Foreign Trade Bureau should be established, which under the management of the Executive Committee, should undertake a campaign of education with individual canners in order that they be fully advised of the necessity of encouraging foreign trade for the purpose of maintaining the domestic market and disposing of surplus products.

Such a bureau would not only be helpful in introducing our pack in foreign markets, but as well, in handling all questions which pertain to the foreign trade, such as that of embargoes on exports, the regulations of the War Trade Board and of the Shipping Board and other government agencies which have to do with foreign trade during the present unsettled period. The Bureau would also make a study of foreign tariffs and be in a position to make special studies and reports to the canning industry and in case of necessity to the departments at Washington. The European market is already acquainted with our products. The war has carried our canned goods into Europe and France and even into Italy, and the men who have eaten tomatoes in the trenches or found a can of hot baked beans a perfect meal after hours of fighting will not forget them. And when they get home to their families they will want them again.

Every canner was interested to get the latest news of the tin can situation. For more than a year it has been difficult to get cans in sufficient quantity to meet the demand. The fuel shortage, demoralization of transportation and the necessity for giving preference to orders for tin plate required for perishable food containers for the army and navy, limited production and restricted distribution. In spite of these handicaps, to which should be added that of scarce and inefficient labor, the can manufacturer turned out a very large volume of containers for the domestic trade. All of the restrictions on the manufacture and use of tin plate are removed, stocks are being rapidly replenished and there is no reason why the canner should be concerned over the possibility of not being able to secure sufficient cans for his need. The price of the container will continue high for some time. Tin is still scarce and high. Any reduction in the price of steel must come slowly for the cost of handling ore and freight and labor costs will remain high for months after the signing of Peace. There is no reason to expect any material reduction in the cost of the package into which the 1919 crop will go and the consumer must pay the price as one of the costs of war.

### Results of the Canner's Convention

Practically all conventions produce speeches, but it is seldom that a convention of business men adjourns with so many of the sentiments expressed by the more forcible speakers crystallized into resolutions with plans and an organization behind each resolution that insures its accomplishment into a fact, as did the convention of the National Canner's Association, held January 20 to 24 in Chicago.

Judge Covington's stirring plea for a higher standard of canned foods and the advertisement to the world of this high standard so that people in all parts of the world would seek American canned goods because of their wholesomeness and cleanliness was acted upon in the form of a resolution which will result in a self-imposed system of inspection of all canneries that will be more rigid and more productive of high-grade goods than even the Government inspection during the war. While no action was taken directly on the advertising campaign that will make the name "American Canned Goods" synonymous with purity and high grade in all lands of the world, it was the consensus of opinion that this would follow naturally after the inspection system was fully worked out.

C. H. Bentley's speech, in which he reviewed world market conditions and urged immediate organization to capture foreign trade for the American canners was acted upon with a resolution which insures the formation of an export organization under the Webb act for the purpose of developing foreign trade.

Walter J. Sears
Elected Vice-President

The conference committee made a report on several important matters. It recommended the standardization of the sizes of cans. This subject is one of great concern to the food official who should be interested to know that the canner is thoroughly committed to the idea that the number of sizes should be limited and standardized. The committee recommended the appointment of a special committee to study this matter and as well to arrange for the yearly publication of a revised and enlarged list of canned food weights with metric equivalents. The definition and standard of peas as drafted and revised by the Committee on Definitions and Standards of the United States Department of Agriculture was unanimously approved.

The Canners' Associations in the states where the canning industry is important are now meeting to check up the work of the National Convention. They will discuss the necessity for constructive legislation; the advisability of providing for sanitary inspection at the plant and the adoption of standard grades. In this work the state food official is keenly interested and at this conference he will find an opportunity to be of real service to an important industry.

H. E. B.

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### Entertainment Feature

The real feature of the entertainment program which was provided for the visiting canners during the convention in Chicago was furnished by The American Can Co.

Mr. O. L. Demming, advertising manager of the company, purchased practically all of the seats in the Colonial theater and Cohan's Grand Opera House on Thursday evening and supervised the two theater parties. At the Colonial the canners enjoyed "Ziegfeld's Follies" and at the Grand "Going Up" gave them a laugh that they will take home with them and relish for many a day.

### Truthful Labels

J. W. McCALL, a canner and chairman of the baked bean section of the National Canners' Association, knows beans and has this to say of what the label should mean:

"Pork and beans" should mean that there is actually a piece of pork visible to the naked eye in the can, the weight of the pork in each can should be fixed, and those who knowingly give short weights in the pork should be punished. "With tomato sauce" should mean just what it says and a minimum quantity of standard gravity tomato pulp should be used in one hundred gallons of sauce.

This would not prevent any packer from using more tomato and making a better sauce, but it would put a stop to some of the "near tomato" sauce, some of which contains no tomato at all, which has been employed by some packers in the past.

Instead of using the regular theater programs for this occasion the can company gave with each ticket a magnificent combined program with the edges stepped in red, white and blue and containing the cast of characters of both shows with half-tones of the leading actors.

Mr. Phillips delivered the address of the evening for the American Can Co., telling the canners in both theaters how glad he was to see them. Mr. Gerber, the newly elected president of the canners, responded for the organization.

# Western Fruit Jobbers Urge Return of Railroads

## Go on Record During Convention for Complete Separation of Government and Big Business Affairs

WITH the consciousness of many benefits having been derived from the Food Administration War Regulations and the feeling that certain features of government control of industry is resulting in inefficiency and loss, The Western Fruit Jobbers' Association of America met in Chicago the first week of this month to struggle with the problem of how much of government regulation should be encouraged in their business and how much of government control should be discouraged.

The meeting, which was the fifteenth in the history of the organization, was the largest ever held, and by far the most important, due to the peculiar conditions which the cessation of the war has forced upon all industry and the many problems which this condition has raised. Briefly summarized, the results of the convention, expressed in resolutions, are as follows:

### Resolutions

*The Association went on record as favoring immediate return of all transportation, including the railroads, telephone and telegraph companies, to private ownership.*

*The Association protested against the new telephone rates and asked for their reconsideration.*

*The Association went on record as favoring legislation against the giving of rebates, gifts, concessions and other unfair trade practices.*

*The Association went on record as favoring constructive legislation along the lines of continuing the beneficial regulations embodied in the Food Control Act passed during the war, especially those pertaining to hoarding, prevention of waste, etc.*

*The Association went on record as favoring the enactment of the Lever bill authorizing the Secretary of Agriculture to establish uniform standards of classification of fruits and vegetables, to provide for the use of such in interstate and foreign commerce and to prevent deception in reference thereto.*

*The Association went on record as favoring the passage of the amendment to the war-time Railroad Control measure which would return to the Interstate Commerce Commission the authority to suspend, review, set aside or modify rates proposed by the President or Director-General as it had before the war.*

It was not a speech-making convention, but a meeting that was prolific of straight business thinking and clean-cut action; nevertheless, there were two speeches that will long be remembered, speeches that were given straight from the shoulder and that were impressive because of the sound business philosophy expressed.

Ralph Hoxie—President

Attorney Phil A. Grau of Chicago did not mince words when he told his audience at the Fruit Jobber's banquet that much of the chaotic conditions in the relationship between the government and the various businesses was due to the failure on the part of the business men to inform themselves on political affairs and take part in the law making.

"I should like to ask whether the law makers down there at Washington know more about running your business than you do?" said Mr. Grau. "And I'd hate to ask if there are ten men in this audience who know in what Congressional District they live," he added. "It is your duty to inform yourself on the subject of the day, and see that men are elected who will enact laws that will give the greatest good to the greatest number. The problems cannot be solved by each of you individually. It will require concerted action."

He then paid his respects to government control of the railroads by saying that anyone could run a railroad if we met every demand for a raise in wages by raising shipping rates, and urged that the railroads be returned to private control.

### Oppose Sherman Law

He demanded that the business men of the country "get up on their hind legs and slap the Sherman Anti-Trust law in the face." "If the government could not run the railroads successfully and economically by violating the Sherman law, how in Heaven's name can the private individual run them in conformity to the rules of this law?" he asked.

In touching upon the labor situation, Mr. Grau said that whether we liked it or not, the business must come to a realization that the laboring man must get a larger percentage of the profits of his labor than he has been getting heretofore.

The other notable address was delivered on the last day of the session by Harry A. Wheeler, president of the Chamber of Commerce of the United States.

Mr. Wheeler, like Mr. Grau, emphasized the necessity of business men taking a greater interest and more active part in the political affairs of the country than they have done in the times past. He deplored the tendency of most business men to pass judgment on great governmental affairs simply on the prejudice which was the result of a limited personal experience instead of putting in some time of good hard study so as to know the problem from all its angles.

In regard to the international situation the speaker said that if this country wishes to avoid entangling relationships with other countries, it will not be able to do so and he warned the business men that no matter how perfect his private business system might be, if it were not attuned to international relationship, it will do no good.

In regard to the Sherman Anti-Trust Law he said that unless the laws of the country were so constructed that the business institutions and men could meet and co-operate in the transaction of the affairs so as to effect the greatest economy and efficiency, the government would have to engage in such industries and he did not believe that the highest efficiency or economy could be attained by government's taking over business.

Mr. Ralph Hoxie of Waterloo, Ia., was elected president; A. R. Currey of Butte, Mont., first vice-president; A. D. Hitz of Indiana, second vice-president; Charles Trimble of Omaha, Neb., treasurer, and W. T. Tidwell, secretary.

San Francisco was selected as the next meeting place.

## Help Chemists To Find Positions

The Executive Committee of the American Society of Milling and Baking Technology believes that this is a propitious time to launch a movement which will assist the baking and milling chemist to find a position, and the baker and miller to find a chemist.

It has been intimated that a number of men and officers who have served in the Quartermaster and Medical Corps have indicated their desire to engage in the work of testing wheat and flour. In order to help these worthy young men to find positions the A. S. M. B. T. wishes to announce that a central Clearing House or Employment Bureau will be established to bring these men in touch with the employers and to help the employers (miller and baker) to get in touch with these men.

Secretary J. A. LeClere of the A. S. M. B. T. will be glad to be advised of all demands for qualified chemists on the part of millers, bakers and cereal laboratories and to receive the names of all members of the society who would like to register for the purpose of having the society assist them to obtain a position.

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Dairy owners met in Chicago, February 17, to consider problems which peace has brought to them and to plan for an increase in their product.

## Potato Flour to Be Made By British

(By Commercial Attache Philip B. Kennedy, London)

It has recently been announced by the Ministry of Food that the shortage of tonnage and the heavy demands upon it make it imperative to utilize British food resources to the utmost, and, accordingly, the Food Ministry has made arrangements for the establishment of mills for the production of potato flour, which, it is hoped, will be on a large scale. This industry, although a new one in Great Britain, has been established for many years on the continent; for example, Germany before the war had 500 potato flour factories in operation, whereas it now has over 2,000. This alone would demonstrate the possibilities of the enterprise in this country.

For some time the Ministry of Food has been conducting experiments in making potato flour, and these have resulted satisfactorily. The Food Controller has signified a willingness that this project should be undertaken by private firms, and an endeavor is being made for individual concerns to take it up, the Food Ministry standing ready to give all assistance necessary in the organization work.

Stated briefly, the process of manufacture consists of working the potatoes and passing the potato mash over hot rollers, on which it forms a thin film. This film is removed from the rollers by a scraper in the form of flakes, which can be kept for a considerable length of time, and then turned over to the mills for converting into flour. It is estimated that the percentage of the potato flake extracted is 20 per cent of the weight of the raw potatoes.

In order to eliminate unnecessary labor and transportation the Ministry of Food has placed certain limitations on the factory sites, and it is proposed that factories be situated, as far as possible, in the localities where potatoes are grown. Machinery and raw materials for the production of potato flour are to be provided by the Ministry of Food. At the present time there are flaking machines enough in Great Britain to handle the work, since ordinary flour mills can convert the flakes into flour. In case there should be any necessity for importing machinery, the Food Controller will arrange that shipping priorities be given to permit its importation.

The financial arrangements for this undertaking have been worked out, and at present they are awaiting the official sanction of the British treasury department. The Food Ministry, however, is confident that these arrangements will be approved, as submitted, within a very short time.

Great Britain before the war imported a large portion of its potatoes, which were largely consumed for food, but in view of the U-boat campaign and the decrease in imports the country was forced to produce its own. Great Britain now has an overproduction of potatoes, and the formation of this industry provides a means for the consumption of this oversupply. The establishment of this industry would provide employment through the winter for labor available on the land in summer, and the process is one in which women can be almost exclusively employed, with the exception of stoking and other heavy work. This new industry will prevent the loss of raw materials, and will insure their production, which will also have a tendency in stabilizing the potato market.—*Journal of Commerce.*

## Europe Likes American Milk

European people have learned to like American dairy products. Exports of condensed milk to Europe rose from 16,000,000 pounds in 1914 to 530,000,000 pounds in 1918, and there were notable increases in exports of other dairy products. Much of this may be due to abnormal war demands, but the United States Department of Agriculture believes that there is both an opportunity and a tendency to expand in this direction over pre-war requirements. A normal increase in dairying in this country, the department thinks, is fully justified, provided there is the necessary increase in feed crops.

## Consumption of Sugar in the United Kingdom

Figures just published place the consumption of sugar in the United Kingdom during 1918 at 941,000 tons against 1,099,000 tons in 1917. The stock on January 1, 1919, is reported as 348,000 tons of raw sugar and 34,000 tons of refined as compared with 135,000 tons and 62,000 tons, respectively, a year ago.

The United States food administration has given out the following:

Average of three pre-war years to all countries, 13,019 tons.

Last fiscal year, 295,908 tons.

Increase, 2,173 per cent.

# Vegetable Shippers Attend Important Meeting

## Thrash Out Many Problems That Have Arisen Over Shipping Since the Return of Peace

THE annual business meeting of the American Fruit and Vegetable Shippers Association, held in Chicago January 31 to February 4, was just what the title implies—a business meeting in which many subjects relating to the details of the business of the association were discussed in committee meetings. There were few set speeches, such as characterize a convention, but it is doubtful if any convention could have so thoroughly covered the ground with such technical matters as did the men in these meetings.

The problems that came up for solution were largely of a technical nature, having to do with the relations between shippers and railroads, express companies, telegraph and telephone companies, etc., and each problem was thrashed out in a subcommittee meeting, then in the general department meeting, after which it was presented to the entire delegation for action in the form of a resolution.

### Return Railroads

The members of this association went on record as favoring the immediate return of the railroads and telegraph companies to private control, claiming that the continuation of government control was not conducive to economic efficiency.

In a speech delivered before the Traffic Committee G. Harold Powell, a former member of the Food Administration, urged the continuation of some of the governmental regulation of the fruit and vegetable shipping industry that had been in force during the war, and he pointed out the need of legislation to continue these regulations. He further said:

"I believe it to be not only in the public interest, but of great benefit to the producer; shipper and the trade at large, that their transactions if they so desire should have the general supervision of the Federal Government in order that there may be confidence in the fairness of the perishable food transactions. There is no question of the fairness and integrity of perishable food transactions as a whole, but the perishability of the products and the unfair practices of a small minority often prejudices the public against the business as a whole and are detrimental to the interests of the honest shipper or dealer. There is also great waste in perishable foods because there is no way in which disputes between parties at interest can be quickly adjusted. I have not definitely formulated my own judgment as to the method of Federal supervision or to the extent to which such oversight should go; nor am I at all sure of the attitude of Congress as to the extent which control of industries should go as an after war measure. I am quite clear, however, on certain fundamentals and I desire to present these as a personal rather than an official point of view, after an experience of 18 months in the U. S. Food Administration.

E. P. Miller—President

"Secretary of Agriculture should be given the power to facilitate the distribution and marketing of perishable food products and to aid in reducing loss, delay, waste and controversy in their movement and sale; to establish uniform standards for perishable foods shipped in closed packages in interstate and foreign commerce; the use of the standards to depend on the choice of the shipper rather than to be obligatory; the Secretary of Agriculture issuing the standards and the rules and regulations making them effective after consultation with the interested public; the penalties for violation to be assessed by the court; of informing the public of practices that are wasteful and unfair, after advising the public, as a result of investigation and of conference, of methods that are economical and fair.

"To make the adoption of the rules and regulations to prevent wasteful, unfair and discriminatory practices, elective with the parties interested rather than mandatory, and to license or register all persons who voluntarily elect to adopt the standards and regulations in their interstate and foreign business. This establishes an honor roll among the members of the trades, and this roll is known to all who transact business with shippers or receivers.

### Put on Honor

"To cancel or suspend the registration of any person who violates the conditions of his voluntary enrollment and to publish the cancellation with the reason for same. This cancellation would not deprive the person of the right to transact business except under the government standards and rules. It takes him off the honor roll and the public is informed of the reason."

Charles J. Brand, Chief of the Bureau of Markets, in addressing the Annual Dinner of the American Fruit & Vegetable Shippers Association made clear his position with reference to this matter. In discussing it, Mr. Brand said:

"I do not favor any form of regulation which has as its central idea and purpose punitive action toward the Produce Commission business. Any supervision or regulations to be undertaken must have as its purpose the constructive up-building and improvement of the industry and must carry out what is already in the minds of the most progressive and successful members of these Trades.

"Too many persons see a conflict of interests between the necessary middle man and the growers and consumers. To produce a constructive supervision, which assures the producer of an open and fair market and the consumer of prices not unduly elevated by wastes, excessive charges and other

(Continued to page 46)

# The Function of Food Control

*By Dr. H. E. Barnard*

OPPOSITE my home an old house is coming down. It was the first house built in Irvington and its builder intended it to last. So it was built carefully, slowly, with great white oak beams and massive brick walls. It was years going up, it is being torn down in a week. Constructive work is slow—destructive work is swift. It takes time to create, but moments may undo the work of a decade, a life time or a century.

When food control became a function of state and federal governments there were few men trained either for the technical or executive duties of food officials. The new laws were of necessity administered by departments that hardly knew for what they were organized. Conditions in the food supply were bad, adulteration was common, fraud was easy to detect, the people were crying for relief, newly appointed officials were zealous, reporters were eager for news, and the results of the crusades launched in the space of a few years all over the country were just what were to be expected from the conditions that made them necessary. The food industry was attacked, frequently with justice — frequently without. The Jungle, Sinclair's tale of the Chicago Stock Yards, written as a sociological study, turned out to be a first seller, and meat was banished from a million tables almost over night. To admit that one was a butcher was in the public mind a confession of partnership with murderers, and like Hester Prynne, every manufacturer or dealer in foods wore a scarlet "A" across his heart.

### Suspicion Justified

I am not saying the suspicion of the consumer was not justified. In many cases it was. But the occasion soon passed. Never in industrial history did a reformation come so quickly or succeed so completely. And, I gladly say it, never again will the consumer have any need to fear that his food is of the character described in a quaint old book printed in London a century ago under the interest compelling title "Death in the Pot," which speaks of the bread of that time as "no longer the staff of life, but a crutch to bear us onward to the grave."

Today the state and federal food departments are under the direction of trained, conscientious executives and skilled chemists. Whenever a tale is told of vicious practices, it should be told; whenever an offender is brought to the bar of Justice that is where he belongs. Pure food legislation is sought, not as a means of relief from an intolerable situation, but because better regulation means inspired confidence in the consumer—the passing of unfair competition and better business.

The present day food official believes in the industries he supervises. He looks upon his official position as on that plank in the platform of constructive food control we take our an opportunity to better things. And stand.

### Big Opportunity

The food official has before him an opportunity almost unequalled. The health of the people depends on the way they are nourished, the prosperity of our country is but a reflection of the vigor of its citizens. Our food supply is far from adequate. It is true almost none of us go hungry to bed. Our stomachs are full—but they aren't always filled with the right things and rarely are they filled with the kind of food that furnishes the most nutriment for the least money.

Almost a third of our income is spent for food. The world counts time by its meals. It's time for breakfast—time for dinner—time for supper. Men work all day to procure food—women all day preparing it. We may think there are more important things in life than food, but there aren't. Now then isn't it clear what the field of the official is? It is his work to secure more food, cleaner food, cheaper food, and whatever he may do to this end is in the line of duty.

I have no patience with the official who conceives his job to be the collection of license fees, or who is so zealous in suppressing the fraud of watered milk that he overlooks entirely the vital danger in dirty milk. I suppose some one must scan labels and criticize formulas, but how much more valuable is the work of the inspector who makes a good ice cream plant out of a bad one or who by wise counsel helps a grocer to turn failure into success by substituting cleanliness for carelessness.

The food industries may be easily classified. Among the leaders are the meat packers, the canners, the millers, the varied dairy interests, the bakers, confectioners and bottlers. After them—the producers—come the distributors, the grocers and dealers in meat, fruit and vegetables. What better work can a food official do than to help the individual units in these great industries to get together, organize, adopt standards, learn that competitors are fine fellows, whom it does one good to know—get new ideas? I would give more for an opportunity to talk with half a dozen grocers or milkmen or canners for half an hour than for a string of police court verdicts that would fill a page in my annual report. Verdicts do not count, conferences do. Conferences build up, inspire, establish confidence. Prosecutions tear down, depress, create suspicion. It helps to scold a canner on the floor of his peeling room for faulty washing and bad sorting. Every man in industry knows the injury that comes by dragging out the sordid facts in the court room before a horde of insatiate reporters for a sensational press.

### Constructive Work

I am no prophet, I try not to dream dreams, but whenever I think of the possibilities for constructive work in the departments which enforce food legislation, it seems to me that we, as officials, are but on the threshold of our careers. In many states the laws may not admit of so liberal construction that officials may do something besides police work, appropriations may be inadequate, public sentiment may be dormant. But there are always opportunities to boost, instead of knock; the finest thing that a man can do is to arouse a demand for and secure the passage of liberal and constructive legislation. And right here let me say that I pity the man in business, the association or the industry that either in sincerity or with selfish intent attempts to block the onward movement of the high powered car carrying the banner of health and sanitation.

There may have been a time, or an occasion, when it seemed to be necessary to oppose regulative legislation. I don't think a similar argument will ever be good again.

The food official of today is usually intelligent, fairly well trained, surrounded by expert advisers and supported by a corps of competent inspectors. He wants to serve the public well, he also wants to help the food industry. If he criticizes he does so with good intent; when he praises it is because he tries to give merit its due.

He should be a welcome guest at the factory, a legal adviser in questions of food law; a counsellor in every attempt to make better goods or when opening a new market; he should seek to improve conditions in the community he serves. The progressive food manufacturer will forget he is an official and look upon him as his staunchest friend and sincerest booster.

## Evaporated Milk Declared Healthful

Many well informed persons are afraid to use evaporated milk lest its use cause scurvy or rickets. Not the use of evaporated milk, but too great economy in its use is believed by dietitians to be responsible for evil effects.

Scientific investigation shows that the health and growth protecting substances which are in solution in fresh whole milk are not destroyed by the process of evaporation. All the minerals present in fresh milk are still present after evaporation. The same food substances also are there, although they have been cooked, giving to evaporated milk its peculiar flavor.

Adults should have a daily allowance of one-half pint of milk a day. Children from one pint to one quart. When evaporated milk is used, however, there is a tendency to economize by using less than this amount. The ill effect is rarely noticed on the strong and vigorous, but children and invalids show it in a short time.

One pound can of evaporated milk is equivalent to one quart of fresh milk. If the latter cannot be obtained or is of questionable quality, measure out one-half cup of evaporated milk for each adult in the family and from one to two cups for each child, then dilute with an equal quantity of water.

Treat milk in every form as a food, not as a beverage.

## Preservers and Fruit Products Men Form Organization

THE National Preservers and Fruit Products Association has been organized as a District of Columbia corporation and with its chief offices there.

More than fifty per cent of the jam, jelly and marmalade manufacturers of the United States it is said, have already joined the association, representing more than 75 per cent of the capital invested in the industry. The constitution contemplates admission to the association also of associate members who are indirectly in the industry, and who have all privileges of membership, excepting those of voting.

The constitution of the association sets forth its purpose as follows:

> "The object of the association shall be to bring together manufacturers of jam, jellies, marmalades and kindred fruit substances, for interchange of views; discussion of methods of preparation of their products; improved methods of distribution and marketing of their products; the dissemination of information for mutual welfare of their business; the application of sanitary methods surrounding the manufacture of their goods; to co-operate with the United States and State authorities in promoting uniformity of laws, rules and regulations made thereunder regarding the industry; to furnish advice and assistance on all questions which concern the relations between the food authorities and the industries represented in the association; to afford a council of general defense of the industry, in all cases where it needs to be defended, by reason of any fundamental principles that may be involved; and generally, to promote, protect and extend the welfare of the business represented in the association."

The headquarters are at 414 Maryland Building, Washington, through which all members will be kept in touch with matters of interest to their industry.

Officers elected were as follows: Marcus Blakemore, of Curd & Blakemore Company, Louisville, president; R. U. Delapenha, of R. U. Delapenha & Co., Inc., Poughkeepsie, N. Y., first vice-president: A. Rupert, of A. Rupert & Co., Portland, Ore., second vice-president; Oscar T. Sewell, of Gibbs Preserving Company, Baltimore, Md., secretary and treasurer.

At the first meeting of the association, recently held in Washington, there was formulated, for the use of the United States Standards Commission, and at its request, a list of definitions and descriptions of the products of the industry represented, with recommendations for their incorporation into the official national and state standards.

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AVERAGE wheat prices in the last year, as estimated by the Bureau of Crop Estimates and excluding States producing less than 1,000,000 bushels, ranged from $1.83 a bushel in Utah to $2.26 in South Carolina.

## Golden State Has Huge Citrus Crop

California's citrus crop this season is estimated to be worth $65,000,000, according to the latest reports from that state. It will require to transport this enormous crop to market 53,000 of the latest improved refrigerator cars. The division and number of cars necessary to be employed are: Navel oranges, 21,000 cars; valencias, 19,000 cars; lemons, 11,000 cars; miscellaneous varieties, 2,000 cars. Ninety per cent of this wonderful citrus crop is produced in southern California. These figures are compiled by the California Fruit Growers' Exchange and other sources.

## Will Continue Farmer's City Market

A city market established last summer in Trenton by the farm bureau of Mercer County, N. J., was so successful that the plan is to be carried out this year on a more extensive scale. The county agent estimates last year's business of the market at $500,000 worth of farm products sold at wholesale and retail. Until last year Trenton had no market, and for 25 years farmers had backed their wagons up to the curb in the center of the business section of the city. Establishment of the markets resulted from cooperation between the county agent, the Bureau of Markets of the United States Department of Agriculture, and the city officials of Trenton.

The Executive Committee of the food control official organization met February 10 in New York.

# Many Food Laws Are Proposed in State Legislatures

## High Cost of Living and Other Conditions Prompts Much Law Making

IN giving the list of proposed food laws introduced this year in the United States Congress and in the legislatures of the various states THE AMERICAN FOOD JOURNAL seeks only to be of service to the business men who are directly interested in the passage of good food laws. While we present here a list that is fairly complete up to the fifth of February and some laws that have been proposed since that date, we cannot guarantee that all of the laws presented in the various legislatures are included. In some cases the copies of the laws have been received in this office and the synopsis printed below taken direct from the printed copy, but in many cases our informant merely gave us in a letter the synopsis, therefore this JOURNAL cannot guarantee that the statements made below are absolutely correct. We would advise any interested persons to get a copy of the particular law in which he is interested direct from the capital of the state in which it has been introduced.

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### U. S. Congress

House bill 14915 provides that whenever the terms "alcoholic liquors" or "intoxicating liquors" appears in any statute of the United States or enacted by a territory, an island possession or the District of Columbia prohibiting the sale of intoxicating or alcoholic liquors or beverages, it shall be construed to include all liquors containing alcohol in any degree whatsoever.

### Arizona

Senate Bill No. 6 prohibits the representation of the United States flag or shield or the state flag on any advertisement or label.

Senate Bill No. 11 is an amendment to the weights and measures law and relates mostly to the delegation of power to the proper officers for the enforcing of the law. It contains, however, a section which fixes a standard weight for bread loaves at 16 ounces net weight and provides that no bread shall be sold except as full loaves weighing 32 ounces, half loaves weighing 16 ounces or fourth loaves weighing 8 ounces unless labeled in plain English as to correct net weight. It excepts rolls, or fancy bread and stale bread sold in quantity.

### California

House Bill No. 14 is an act to prevent deception or fraud in the production or sale of oleomargarine; to license the manufacture or sale of oleomargarine and to regulate the business of producing or selling this product. The definition of oleomargarine in this bill is an inclusive one taking in all forms of so-called butter substitutes made either with animal or vegetable fats; it provides that the word oleomargarine must be stamped or printed on all packages and that all mention of "butter," particularly the words "butter substitute" shall be omitted from the label or advertisements.

Assembly Bill No. 195 provides a new section to the penal code by prohibiting the sale of Coco-cola or any preparation thereof.

### Colorado

House Bill No. 88 is an act to make the head of the department of animal industry of the state agricultural college ex-officio State Dairy Commissioner and fixes the salary for his services.

House Bill No. 304 defines butter, process butter, icecream, etc., and gives the fat requirements.

House Bill No. 327 prohibts adulteration and misbranding of foods and provides for the marking of the net weight on the packages or containers.

### Indiana

House Bill No. 57 prohibits the manufacture or sale of near beers and prohibits the sale of intoxicating liquors by druggists.

House Bill No. 88 provides for the licensing of all distributors of food products, including restaurants and hotels and provides for the inspection of the places of business of such distributors.

House Bill No. 89. Providing for analysis by chemist of State Board of Health of drinking water or bottled water sold or offered for sale to the public. Analyses to be made semi-annually at expense of licensee.

House Bill No. 255. Uniform egg bill covering and controlling the manufacture of frozen, liquid or dessicated eggs; providing for license and inspection by State Food and Drug Commissioner. Prescribing certain sanitary regulations and an annual license fee of one hundred dollars; and prescribing penalties and providing for suspension or revocation of license upon conviction of violation of food laws.

House Bill No. 256. Uniform act regulating traffic in eggs, to prevent fraud and misrepresentation, and to prevent the sale of eggs unfit for human food; providing for candling, labeling, etc., by all candlers except retailers not buying from producer. Requires license issued annually by State Food and Drug Commissioner, provides penalties for its violation and permits suspension or revocation of license by State Food and Drug Commissioner upon violation of any state food laws.

House Bill No. 297. Standardizing weight of loaves of bread; providing for labeling with weight and maker's name; providing for inspection by State Food and Drug Commissioner and promulgation of rules of sanitation, etc., by Food and Drug Commissioner and prohibiting employment of employees afflicted with certain diseases.

### Maine

An act has been introduced (number not ascertained) which will repeal section 16 of chapter 37 of the revised statutes which fixes the capacity of milk cans used in the wholesale trade.

### Massachusetts

Senate Bill No. 270 prohibits the sale of coal tar derivitives, singly or in combination with other substances except on physician's perscription and provides for the keeping of a record of sales.

House Bill No. 448 provides that milk cannot be lawfully sold unless the date of production be marked on every container. The bill does not specify whether whole milk or condensed milk is meant.

House Bill No. 449 provides that no milk shall be graded or sold as of any particular grade in any city or town until the grade has been approved by the board of health of that city or town.

House Bill No. 451 creates a milk commission with power to control the production, sale and price of all milk and by-products of milk and provides that the Board of Health, the Bureau of Animal Industry and the Bureau of Agriculture shall jointly constitute this milk commission.

House Bill No. 505 requires the registration with the Board of Health of each city or county of all persons who maintain establishments for the production, distribution or sale of foodstuffs or beverages.

House Bill No. 759 prohibits the destruction of food or permitting food to decay or shipping from the state for the purpose of destroying or permitting to decay so as to raise the price of food or restrain trade.

House Bill No. 971 is to amend the pharmacy law and forbids the sale of any preparation containing any narcotic in any quantity.

House Bill No. 974 provides for the inspection of fish offered for sale at wholesale.

Senate Bill No. 16 prohibits the employment of any person with venereal disease in places where food or drinks are manufactured or sold.

House Bill 1074 is an amendment to the law relating to the manufacture and sale of bread and provides that bread shall be made of one or more of the following ingredients: wheat flour, rye flour, corn flour, lard, vegetable oils, butter, sugar, malt extract, corn syrup, salt, yeast, water, milk, corn sugar, cereal flakes, and any other substance commonly sold at retail as food. If any other material is used it must be stated in plain English on the label.

### Minnesota

House Bill No. 9 is a bill to prohibit the use of the U. S. flag or shield or any representation of the U. S. flag or shield or any part of them or the state flag in advertisements. This bill goes farther than most state bills of this nature and prohibits the use or representation on advertisements of the flag of any friendly foreign nation, of the Army signia of the Y. M. C. A., the Red or Navy uniform or the insignia of the Y. M. C. A., the Red Cross or any similar organization.

House Bill No. 41 fixes standards of weights and measures in part as follows: All articles of merchandise of whatever nature or description sold in cans, bottles, jars, packages, boxes or other containers or wrappings of any kind shall be subject to the following regulations: If sold by weight the net true weight exclusive of container or wrapper, if it weighs 4 ounces or more shall be 4 ounces or any multiple thereof; if sold by dry measure the net and true amount of such article if it weigh ½ pint shall be ½ pint or any multiple thereof; if sold by liquid measure if it measures 14 7-16 cubic inches shall be 14 7-16 cubic inches or any multiple thereof.

House Bill No. 75 requires that patent medicines and cigars shall not have the retail selling price marked or printed on the labels.

Senate File No. 89 seeks to amend the law relating to the adulteration of ice cream and fixes the minimum butter fat content at 8 per cent except in nut fruit or chocolate ice cream which shall have a minimum of 6 per cent butter fat.

House Bill No. 93 seeks to fix the maximum time of remaining in cold storage of fresh meat, fresh meat products except in process of manufacture, fresh food fish, game poultry, eggs, milk, and mild products, and edible fats and oils, at 10 months and prohibits the sale if tainted. It, however, would give the commission power to extend the time after examination of the articles during the tenth month. It also provides that articles must be tagged with date on entering storage and that when placed on sale after taken out of storage must be plainly labeled or placarded "cold storage food." The granting of power to commissioner to grant license and revoke license if unsanitary conditions are discovered and the prohibition of return to storage of foods once taken out are included in this bill.

House Bill No. 99 is a bill to establish a department of foods and markets.

House Bill No. 114 is to establish a department of foods and markets with particular reference to farm products. This is a long bill that would give the commissioner power to investigate food conditions and prices, establish cooperative societies for the purpose of reducing the cost of living, establish markets in various localities, power to make rules and regulations for the grading, packing, handling, storage and sale of all food products, establish auction markets and publish daily bulletins of prices, investigate delays in transportation, over charges and unfair rates.

Senate Bill No. 184 would compel the labeling of all bread with names of materials and percentage of each used.

Senate Bill No. 245 relates to the manufacture and sale of oleomargarine, licensing, and keeping of accurate records of sales and purchases by wholesale establishments.

House Bill No. 304 is rather a broad measure relating principally to the manufacture, sale and use of medicines, antitoxins, virus, etc., but contains a clause which will be of interest to food manufacturers, stating that it shall be unlawful to manufacture or sell any medicine, liniment, extract, condiment, or sauce intended for the internal or external use of man or beast if such preparation contains over 5 per cent alcohol. It would also compel physicians to write prescriptions in plain English.

House Bill No. 360 would give to municipalities, counties and townships the power to regulate out-door advertising as to place and character of structure.

### Missouri

Senate Bill No. 21 proposes to add to the State Board of Health a division of child hygiene.

Senate Bill No. 140 would repeal the state Food and Drug Act entitled "Food and Drugs—Adulterations and Misbranding—Non Alcoholic Drinks."

House Bill No. 159 would amend section 3 of the act of 1911 relating to the adulteration of non-alcoholic drinks by striking out the word saccharin from the list of forbidden ingredients.

House Bill No. 208 is a long cold storage bill.

Senate Bill No. 297 is an amendment to put the supervision of soft drinks in the jurisdiction of the State Tax Commissioner instead of Inspector of Beer and Malts where it now resides.

### Montana

Senate Bill No. 27 is an act to prevent the destruction of fish, fowl, animal, vegetable or other foodstuffs in restraint of trade.

House Bill No. 191 is an act to amend the prohibition law by removing denatured alcohol, wine for sacramental purposes, alcohol intended for scientific, medical or manufacturing purposes from the prohibitive list.

### New Hampshire

House Bill No. 10 would amend the prohibition law by forbidding the manufacture of cider for beverage use.

House Bill No. 61 is to amend the content law by striking out the clause which excepts the sale of food in package form. The present law requires "any commodity in package form" to be plainly labeled with net contents and provides for tolerances and exemptions of small packages and concludes with the clause which this amendment seeks to eliminate, viz., "And provided that the provisions of this section shall not apply to the sale of foods in package form." This bill also would give the Commissioner of Weights and Measures concurrent jurisdiction with the State Board of Health in the enforcement of this law.

House Bill No. 132 would prohibit the manufacture and sale of cider as a beverage.

House Bill No. 174 seeks to amend the present prohibition law by permitting the manufacture and sale of cider, beer, ale, porter and light wines. No specifications as to alcoholic content.

House Bill No. 198 would amend the law regarding the sale of immature veal by permitting the sale of meat from calves less than 4 weeks old provided the weight, exclusive of head and feet is not less than forty pounds.

House Bill No. 228 seeks to amend the prohibition law so as to prohibit the sale of Jamaica Ginger except upon a physician's prescription.

### New York

Senate Bill No. 1 and House Bill No. 3 both relate to the amendment of the Public Health Act by establishing a Health Commission to administer to the State Department of Health and relates to the work of investigating adulterations and handling foods. It will have an office in each county of the state. A million dollars a year is to be appropriated. It is said that these bills were introduced at the suggestion of the Merchants and Manufacturers Association of New York State.

House Bill No. 34 would authorize and direct the governor to take possession and assume control of equipment and appurtenances used in the collection, pasteurization, and distribution of milk and milk products and the manufacture of same to meet the emergency caused by controversies in the production and distribution of food products.

House Bill No. 35 seeks to create a commission with broad powers to investigate and regulate the production and distribution of milk and the manufacture of milk products. The power of establishing purchasing and distribution bureaus and to seize the production and distribution machinery and sell milk at cost whenever the need becomes apparent because of trouble between the producers and distributors of milk and manufacturers of milk products. This bill would seem, from its wording, to give the state absolute power over the milk industry whenever the commission should deem the exercise of such power necessary or advisable.

Senate Bill No. 89 would amend the general business laws by providing for the dissolution of any corporation which should be found to be arbitrarily and unreasonably fixing prices.

Senate Bill No. 92 would amend the general city laws by giving power to municipalities to seize foodstuffs and sell them at a reasonable price.

Senate Bill No. 107 would prohibit the destruction of any foodstuffs without the consent of the Health Board.

Senate Bill No. 174 seeks to amend the general market laws by establishing a bureau of milk regulation.

Senate Bill No. 215 would create a State Dairy Commission to regulate and supervise production, handling transportation, pasteurization, bottling, delivery and distribution of milk and milk products.

House Bill No. 227 would create a Bureau of Milk in the state department of Farms and Markets and would give power to supervise and regulate the production and sale of milk.

House Bill No. 234 would empower the Health Officer to seize foods and sell them at reasonable prices in an emergency.

House Bill No. 349 would give power to the Department of Farms and Markets to adopt standards and definitions of foods and food products to aid in the proper enforcement of these laws and empower to supervise and inspect all manufacturing plants and places where food products are manufactured or offered for sale.

### North Carolina

In his address at the opening of the state congress the governor advocated the placing of a state tax of 5 per cent on soft-drink syrups and it is said that such a bill is being drawn up.

### North Dakota

Senate Bill No. 27 is a weights and measures bill.

House Bill No. 34 would make it unlawful for any company or person to discriminate in prices between different sections of the state for the purpose of injuring the business of a competitor.

House Bill No. 42 is a long weights and measure bill.

### Ohio

House Bill No. 107 is a cold storage bill that simply provides for the licensing and inspection of cold storage plants.

Senate Bill No. 4 is said to be a stringent prohibition bill.

House Bill No. 142 would require all persons working in restaurants, lunch rooms, bakeries, candy shops, canneries, etc., to be free from venereal disease and provides for inspection and examination at least every 6 months.

### Oklahoma

House Bill No. 231—Is an act to create a commission to regulate the wholesale and retail prices of all foodstuffs, solid or liquid. It may investigate the business, examine the books and where deemed necessary, fix prices by giving 10 days notice.

### Pennsylvania

House Bill No. 22—Is an oleomargarine bill which prohibits the sale of colored oleomargarine and provides for licenses, etc.

Senate Bill No. 101 — Provides that bread shall be labeled with exact net weight and fixes the standard weight of a loaf twelve hours after baking at three-fourths of a pound, one pound, one and one-half pounds, two pounds or other pound weight.

Senate Bill No. 103—Provides for the selling of all dressed poultry by weight.

### South Dakota

House Bill No. 13—Is an act to regulate the traffic in eggs. It is practically the same as the model egg law advocated by the food officials at a meeting in St. Louis and told about fully on page 32 of this issue.

### Texas

House Bill No. 25—Would consolidate the dairy and food commissioners of the state with the department of health.

House Bill No. 174—Relates to commission merchants, requires license, keeping of records, books, etc.

House Bill No. 247 — Is a long weights and measures bill requiring labeling of net weight on all package foods or feeds. No tolerances are mentioned.

### Tennessee

House Bill No. 240—Is an act to prohibit the manufacture and sale of Coca Cola.

Senate Bill No. 242—Is a long cold storage bill.

### Utah

House Bill No. 16—Prohibits the advertising or selling of intoxicating liquor and all patent or proprietary medicines containing more than 5 per cent alcohol.

House Bill No. 22—Is a stock food bill.

Senate Bill No. 44—Prohibits the

(Continued on page 41)

# FOOD NEWS FROM WASHINGTON

## Food Products Inspected at 45 Markets

The food products inspection service of the Bureau of Markets, United States Department of Agriculture, has been extended until it now covers 45 large receiving markets. As shippers and receivers become acquainted with the service, which supplies a neutral inspection for perishables, the condition of shipments improves, owing to better packing and loading of cars, while the operation of the service has tended to prevent loss through delays in unloading cars. Although as first established the service received applications only from shippers, recent legislation broadens its work and applications for inspection are now received from shippers, receivers, dealers, and other interested persons, a nominal fee being charged in each instance.

Among commendations of the inspection service received from farmers' and shippers' organizations is the indorsement of the American Fruit and Vegetable Shippers' Association in a resolution passed at a recent convention.

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## Sugar Ample But Abnormally Distributed

The prospective production of sugar for the season of 1918-19 is about 188,000 short tons less than the annual average for the five years just before the war which, as compared with a total of 18,750,000 short tons, is not of great significance and the current crop is regarded by the United States Department of Agriculture as practically sufficient to meet a normal world consumption even if present stocks did not exist.

Attention is called to the fact, however, that the world sugar supply is not normally distributed. There is a shortage in the beet sugar production in Europe of 50 per cent of the pre-war average, amounting to about 4,150,000 tons, while in the same time the cane sugar output has increased by 3,842,000 tons, and the beet sugar crop of the United States is 131,000 tons above the pre-war average, though the smallest since 1914. No considerable increase in beet sugar production is expected within the next 12 months, though it is expected ultimately to exceed that of pre-war times.

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## Carl Vrooman Resigns as Assistant Secretary of Agriculture

Carl Vrooman, Assistant Secretary of Agriculture, who accompanied the Agricultural Commission sent by the department to Europe, has tendered his resignation, which has been accepted by the President. Mr. Vrooman has not been in very good health for some time and desired to be relieved of his duties so that he might remain abroad until he has fully recovered.

Before the entrance of the United States into the war there was only one Assistant Secretary of Agriculture. The food production act of April 10, 1917, authorized the appointment of two additional assistant secretaries during the emergency. It is probable that provision will be made in the regular appropriation bill for 1920, which is now under consideration by the Congress, for not more than two assistant secretaries. As the department now has two assistant secretaries and as the emergency has passed the existing vacancy will not be filled.

## Food in Cold Storage on February 1

INCREASED cold storage stocks of frozen beef, frozen lamb and mutton, frozen pork, dry salt and pickled pork, and miscellaneous meats, and decreased holdings of cured beef on February 1, 1919, as compared to a year ago, are shown by the monthly report of the Bureau of Markets issued from the Department of Agriculture.

Stocks of creamery butter increased 40.8 per cent compared to a year ago, while some kinds of cheese show increases and others show decreases on February 1 this year.

### Total Holdings of Meats

Frozen beef stocks on February 1 were reported as 288,851,476 pounds, an increase over last year at the same time of 6.4 per cent. Cured beef figures were 36,293,690 pounds, a decrease of 2.1 per cent. Lamb and mutton holdings increased 93.7 per cent compared to a year ago, and on February 1, 1919, were 11,505,380 pounds. Totals for frozen pork were 102,809,793 pounds, an increase of 88.6 per cent. Dry salt pork totals were 457,013,785 pounds, an increase of 30.8 per cent. Pickled pork increased 22.1 per cent, the total in storage on February 1 of this year being 392,373,140 pounds. Miscellaneous meats were 137,635,631 pounds, an increase of 71.2 per cent. Lard holdings increased 119.2 per cent over last year to 135,532,426 pounds.

### Butter and Cheese Stocks

There were 36,815,793 pounds of creamery butter in storage on February 1 this year, including stocks held by the army, navy and allied commission. This represents an increase of 40.8 per cent over February 1 last year. Only 15,728,959 pounds of

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# DR. BARNARD'S VIEWS OF THE FOOD FIELD

## The Unsanitary Towel Should Be Thrown In Discard

THE old roller towel is gone and with its passing disappeared a fruitful source of infection. The dish towel and the little towel tucked in the waitress's belt or carelessly draped over the left forearm must follow it into oblivion. The microscopist has pronounced its doom.

The modern restaurant and lunch room with its exterior of white brick and plate glass is as bright and shining as a newly frosted cake. When you enter and take your seat at the beautiful plate glass table you look around at the expanse of white enamel, resplendent metal and spotless linen which proclaims a devotion to cleanliness rivaled only by the surgical ward in a hospital. Whether guest or inspector you settle back satisfied that at last you have found the temple of the goddess Hygiea. The waitresses are immaculate priestesses in this stainless temple of alimentation. You have ordered your lunch, your plate and glass are brought to you, but before the plate is placed it is given a wipe. Before the glass is filled it is polished by the inevitable apron. The practice is a rite rather than a custom and it is almost a sacrilege to rail against it. But, sad to relate, it savors more of infection than of cleanliness.

Unless freshly boiled the towel, whether it be of the dish or elbow variety, must pass into oblivion along with the roller towel and other attributes that served an unsanitary age. Hygienically speaking the dish towel belongs to the dark ages. In the home where the dish towel is made aseptic after each use it is bad enough, but in the public eating house it is worse than bad. It supplies the medium by which food, plates, glasses, utensils, the waitress's hands and table tops, are all intimately commingled so that each one is loaded with the bacterial flora of the other.

May we hope for the day when dish washing, wiping and cleaning will approach the practice of the laboratory where glassware and porcelain are washed, rinsed in boiling water and placed to drain? No cloth, no matter how well known its antecedents, must touch them for they are absolutely clean and must remain clean.

## Milk Takes Place of Beer For Worker

MILK is a better stimulant than beer. In many manufacturing plants the workmen drink milk to arouse their jaded spirits where they used to resort to the corner saloon.

The Illinois Steel Company allows milk vendors to make regular trips through their works, supplying the men with a better beverage than beer—a real food at a reasonable price. Milk dealers sell fourteen hundred quarts of milk a day in the steel plant and fourteen saloons in the immediate neighborhood of the plant are closed. This may be counted as a victory for temperance workers. It is really an appreciation of the value of good milk.

The school authorities have learned that a glass of milk brightens a dull boy. Employers of labor appreciate the fact that the distribution of milk increases the output of the shop and makes better workmen.

Some beer drinkers may look upon milk as infant food. As a matter of fact it is one of the best foods for strong men.

## Decision in Hebe Case Contrary to Science

WE have learned more about substitute foods during the last two years than in all the years prior to the time it became our patriotic duty to save food at home with which to fight overseas. Indeed, it was a real evidence of patriotism to eat corn syrup instead of sugar, to bake with corn flour instead of wheat flour, to use corn oil as a shortening in place of lard. And we found that there was real virtue in the new foods. We woke to the fact that there were many wholesome, nutritious, well-flavored foods on the grocers' shelves which prejudice or lack of knowledge had kept us from using in normal times.

In other words, when we were helping Hoover conserve food, we found that the so-called substitute foods were in every way staples and as such entitled to a permanent place on every table.

The success of the food manufacturer in popularizing his new foods has stimulated further efforts towards making hitherto unused raw material into cheap and wholesome food. What has been done with the products of corn, cottonseed, and cocoanut can be done with many other materials which are rich in fat, or starches, or protein, if no objection is offered to the development of the new processes and industries which are sure to spring up to meet the ever-increasing demand for more and cheaper foods. But capital is always slow to flow into disturbed or unknown trade channels, and such decisions as that handed down by the United States Supreme Court in the Hebe case are bound to discourage both the progressive manufacturer and the capitalist from entering new fields of work. When, under an old Ohio statute designed to prevent a fraud, it becomes impossible to bring together in a new food such admittedly valuable foods as skimmed milk and cocoanut oil, any incentive toward developing new foods receives a distinct shock.

The opinion of the Supreme Court is clear. The legal aspects of the case have been established. In Ohio it will not be possible, so long as the present law is in force, to sell any evaporated milk product unless it contains all the fat of the original milk. Condensed and evaporated milks which are made of standardized milks are evidently just as illegal as Hebe. What position this places the large dairy interests of Ohio in is problematical. Either the law as it now stands must be repealed or amended, or the practice of adjusting the fat content of condensed and evaporated milks by skimming Jersey milks and adding fat to milks deficient in fat, must be abandoned.

No food official, who is interested in the economics of feeding a growing population, and no health officer who realizes the need for an adequate and satisfactory food supply, can see restrictive legislation enacted in any of the states without protesting with all the vigor that is in him. And the food industries themselves should not sit idly by when bills are being drawn to cramp and retard the development of their most necessary business.

## Tapioca Getting Better Name

TAPIOCA is getting over its bad name. A few years ago the words suggested prunes and hash and a noisy boarding house table, on which slippery little globules of marvelous toughness were served floating in a thin, pale yellow custard or mixed with watery apple sauce. Manufacturers are now preparing tapioca in smooth flakes instead of lumpy spheres, and cooks have learned to serve it in many palatable ways. Nothing else makes such a good thickening for purees, and with apportionate additions it makes excellent puddings.

Tapioca is made from the starch from the roots of the manioc; a large woody, tropical plant which is also known as cassava. In working it into the dietary the cooks should remember that tapioca is almost pure starch and that it is no more a complete food than sugar or butter or highly milled flour. But like them it is packed full of food.

## Warriors Will Be Coffee Drinkers

WE can not get away from information about food, what to eat, when to eat, how to eat. We get it at home, we get it in the newspaper, we get it on the billboards. Every advertiser of breakfast foods, of biscuits, butter, beverages, twists an axiom into his argument and compels sales under the guise of good advice.

The expert advisers in the newspapers and magazines usually have a real truth to impart and give advice which ought to be followed more frequently than it is. Even the advertiser is not as far wrong as the reader frequently suspects. Of course many of his suggestions are self-serving, some are bad, but most of them when taken like candy or castor oil, with discretion, will help us in our dietetic troubles.

The present day pure food advertising is intelligent and usually honest. The business of advertising has become a profession and much advertising is so beautifully done that it is almost an art. The idea of honest advertising and honest selling dates back to the passage of the Federal Food Law ten years ago. Before that time the consumer had no idea what he was going to get when he read the label on the package, and if the claims on the medicine bottle had been even ten per cent true disease would today be unknown.

The splendid success in promoting the honest advertising of foods and drugs has led the consumer to demand the same kind of advertising of his clothing, his fuel, his watch and the other commodities which go to his home. The successful realestate dealer, the prosperous business man, yes, even the farmer who opens his home to a few city dwellers in the summertime, knows that honesty is the best policy and his advertising shows it. There are still some men who think they can make money by fooling their customers, and there are still some newspapers who hold the money received for lying advertising perfectly good, but such men and such newspapers are on the wrong road, and unless they get right it is but a question of time before they will go under.

The day when extravagant and unwarranted claims could sell food to a discriminating public is almost passed. People are still buying patent medicine on the strength of absurd testimonials and ignorant assertions, but they are buying bacon and bread, milk and breakfast foods because the advertiser has learned how to put real facts into the story he tells in the paper and on the bill board. The man who has milk to sell is no longer content to stand up and proclaim that his milk is the best milk. He now takes the trouble to tell why it is the best milk, to explain that milk is a rich food and a cheap food; that a quart of milk furnishes as much food as eight eggs or two pounds of chicken or three pounds of fish. And the baker does not limit the persuasion of his argument to references to goodness, he places the facts about his business before the people whom he would make customers. He talks about his raw material, he describes his sanitary plant, he overflows with information about his mechanical practices and the substitution of automatic machinery for the human hand.

This is good advertising for it is sound argument. It pays the manufacturer to advertise good food. It pays the consumer to read his advertisements.

## Tell the Truth is Now Ad Man's Slogan

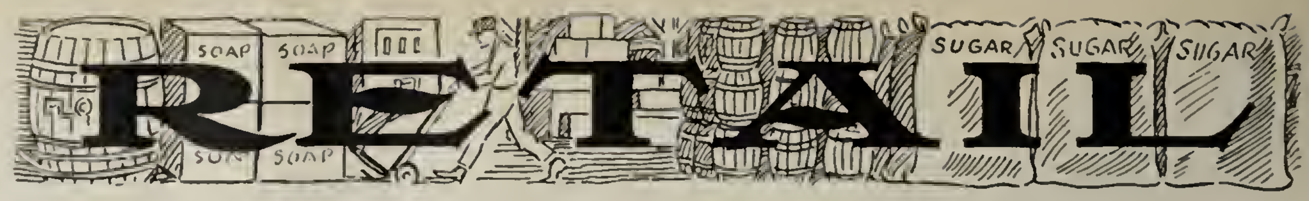
WHEN Johnny comes marching home from every war he brings with him new habits, most of which are permanent and materially influence his future life. Coffee is almost universally used in the soldier's dietary. He learns to love it and to consume it strong and black and in copious quantities. When the millions of soldiers in Europe and in camp go back to their normal life they are going to take a firmly fixed coffee habit with them. The favorite beverage of the camp is bound to be demanded in civilian life. Some of these soldiers are going to start life anew in this country and our coffee merchants should be ready for them.

Two things are worth remembering in increasing coffee consumption. The coffee roaster must sell a real bean, properly blended, properly roasted and properly priced. There are good grades of coffee among the cheaper beans, and just as much care must be taken to satisfy the palate of those who demand a medium-priced coffee as the small number who can afford to pay for the fancy grades.

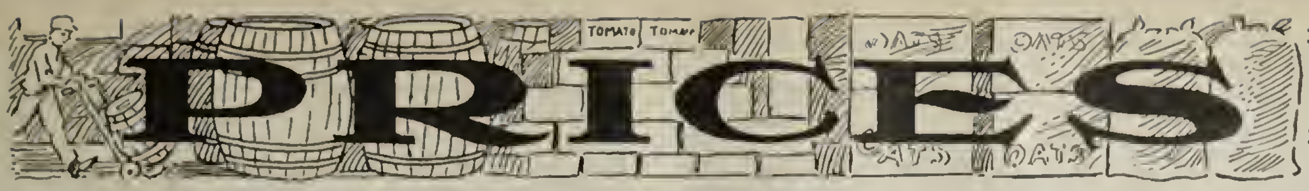
The next important thing is to keep it clean, whether in bulk or

(Continued on page 44)

## FEBRUARY



| Average Price per Pound | Average Price per 100 Calories | | Lima, Ohio (Typical Small Town) | New York, N. Y. | Buffalo, N. Y. | Trenton, N. J. | Providence, R. I. | Concord, N. H. | Hartford, Conn. | Boston, Mass. | Philadelphia, Pa. | Pittsburgh, Pa. | Washington, D. C. | Cleveland, Ohio | Columbus, Ohio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CEREAL PRODUCTS— | | | | | | | | | | | | | |
| .06 | .37 | Wheat flour, war standard, 49-lb. bag | $3.15 | 3.25 | $3.00 | $3.20 | $3.00 | $3.40 | $3.10 | $3.43 | $3.25 | $3.00 | $3.12 | $3.20 | $3.00 |
| .07 | .44 | Rye flour, standard, 24½-lb. bag | 1.65 | 2.75 | 1.71 | 2.20 | 1.40 | 1.75 | 1.60 | 1.60 | 1.70 | 2.45 | .. | .. | 1.76 |
| .07 | .43 | Graham flour, 10-lb. bag | .70 | .70 | .70 | 1.00 | .60 | .90 | .90 | .70 | .75 | 1.00 | .. | .90 | .70 |
| .12 | .75 | Cornstarch, per lb | .12½ | .08 | .10 | .11 | .12 | .12 | .10 | .10 | .10 | .10 | .11 | .10 | .10 |
| .07 | .44 | Corn flour, 5-lb. bag | .35 | .30 | .30 | .40 | .30 | .08 | .40 | .40 | .40 | .45 | .25 | .. | .30 |
| .06 | .37 | Cornmeal, per lb. | .06 | .06 | .07 | .07 | .05 | .06 | .07 | .06 | .07 | .06 | .05 | .07 | .05 |
| .07 | .42 | Barley flour, per lb | .07 | .08 | .07 | .08 | .05 | .08 | .08 | .06 | .09 | .10 | .04 | .. | .05 |
| .09 | .49 | Oatmeal, per lb | .12 | .07 | .06½ | .08 | .. | .10 | .07 | .06 | .08 | .08 | .10 | .05 | .07 |
| .07 | .39 | Oats, rolled, bulk, per lb | .09 | .06 | .06 | .08 | .05 | .08 | .07 | .06 | .08 | .07 | .07 | .05 | .07 |
| .13 | .79 | Rice flour, per lb | .10 | .08 | .17 | .14 | .10 | .15 | .. | .12 | .10 | .15 | .12 | .. | .10 |
| .15 | .95 | Buckwheat flour, per lb | .10 | .09 | .08 | .10 | .10 | .12 | .08 | .11 | .10 | .12½ | .10 | .. | .12½ |
| .10 | .62 | Hominy grits, per lb | .12 | .06 | .07 | .08 | .. | .10 | .13 | .06 | .08 | .08 | 15 | .. | .. |
| .10 | .55 | Quaker Oats, 1 lb. 4 oz | .13 | .11 | .12 | .11 | .12 | .12 | .13 | .11 | .14 | .13 | .12 | .15 | .15 |
| .14 | .88 | Rice, fancy, head, per lb | .15 | .12 | .15 | .13 | .15 | .15 | .12½ | .13 | .15 | .15 | .15 | .15 | .12½ |
| .12 | .74 | Barley, pearled, per lb | .15 | .08 | .08 | .08 | .10 | .15 | .10 | .08 | .09 | .07 | .10 | .08 | .15 |
| .10 | .84 | Bread, per lb | .10 | .08 | .10 | .09 | .10 | .10 | .10 | .07 | .09 | .10 | .09 | .10 | .10 |
| .23 | 1.21 | Crackers, graham, per lb | .22 | .20 | .21 | .22 | .22 | .28 | .25 | .22 | .25 | .23 | .30 | .. | .20 |
| .22 | 1.14 | Crackers, oatmeal, per lb | .22 | .20 | .21 | .22 | .22 | .28 | .25 | .22 | .25 | .23 | .08 | .. | .20 |
| .14 | .86 | Macaroni, per lb | .15 | .12 | .14 | .14 | .15 | .15 | .14 | .14 | .18 | .10 | .15 | .13 | .15 |
| | | SUGAR AND SYRUP— | | | | | | | | | | | | | |
| .11 | .60 | Granulated sugar, per lb | .11 | .09½ | .10½ | .10½ | .10 | .11 | .11 | .10 | .10 | .10½ | .10 | .11 | .11 |
| .08 | .56 | Corn syrup, 10-lb. pail | .85 | .90 | .73 | .75 | .. | .. | 1.50 | .. | .90 | .85 | .80 | .90 | .90 |
| .38 | 2.58 | Comb honey, per lb | .45 | .25 | .35 | .48 | .48 | .60 | .40 | .50 | .50 | .40 | .40 | .45 | .40 |
| | | FATS— | | | | | | | | | | | | | |
| .60 | 2.53 | Bacon, sliced, per lb | .65 | .65 | .50 | .65 | .68 | .. | .55 | .50 | .56 | .50 | .48 | .50 | .60 |
| .61 | 1.75 | Creamery butter, fancy, per lb | .55 | .57 | .58 | .60 | .60 | .76 | .75 | .54 | .55 | .63 | .70 | .53 | .60 |
| .32 | .78 | Pure leaf lard, per lb | .32 | .30 | .30 | .32 | .35 | .38 | .33 | .29 | .33 | .30 | .30 | .30 | .28 |
| .38 | 1.11 | Oleomargarine, uncolored, per lb | .39 | .33 | .40 | .35 | .38 | .40 | .35 | .35 | .40 | .38 | .35 | .35 | .37 |
| .36 | 1.02 | Nut margarine, uncolored, per lb | .37 | .33 | .34 | .35 | .33 | .40 | .35 | .34 | .37 | .34 | .35 | .34 | .35 |
| 1.03 | 2.57 | Italian or Spanish olive oil, per qt. tin | 2.00 | 1.50 | 2.10 | 1.70 | .. | 2.50 | 1.95 | 1.90 | 2.00 | 2.00 | 1.75 | .. | 2.50 |
| .39 | .97 | Cottonseed oil, per qt. tin | .85 | .65 | .80 | .75 | .75 | 1.00 | .50 | .. | .75 | .65 | .. | .. | .75 |
| .37 | .92 | Corn oil, per qt. tin | .90 | .70 | .75 | .75 | .75 | .90 | .50 | .39 | .75 | .80 | .70 | .. | .70 |
| .48 | 1.20 | Peanut oil, per qt. tin | .90 | .85 | 1.00 | 1.00 | .. | .. | 1.40 | .. | .90 | .. | .. | .. | .90 |
| .30 | 1.09 | Peanut butter, per lb | .30 | .28 | .25 | .26 | .35 | .30 | .30 | .20 | .35 | .28 | .25 | .25 | .29 |
| | | FRUITS— | | | | | | | | | | | | | |
| .22 | 1.66 | Evaporated apples, per lb | .20 | .25 | .21 | .22 | .25 | .30 | .25 | .24 | .25 | .25 | .25 | .. | .13 |
| .23 | 1.91 | Evaporated peaches, per lb | .25 | .20 | .20 | .18 | .18 | .32 | .25 | .20 | .25 | .20 | .25 | .25 | .25 |
| .17 | 8.09 | Canned peaches, No. 2½, stnd., 1 lb. 13 oz | .35 | .27 | .40 | .35 | .35 | .45 | .35 | .33 | .35 | .25 | .30 | .35 | .25 |
| .19 | 2.71 | Canned pineapples, No. 2½, stnd., 1 lb. 14 oz | .45 | .33 | .40 | .38 | .40 | .40 | .35 | .35 | .40 | .35 | .38 | .35 | .25 |
| .16 | 1.03 | Raisins, seeded, per pkg., 15 oz | .15 | .15 | .15 | .15 | .15 | .17 | .18 | .15 | .15 | .15 | .14 | .13 | .15 |
| .19 | 1.63 | Prunes, medium sized, per lb | .20 | .16 | .20 | .22 | .20 | .25 | .25 | .17 | .20 | .20 | .12½ | .13 | .20 |
| | | VEGETABLES— | | | | | | | | | | | | | |
| .03 | 1.00 | White potatoes, per lb | .03 | .03½ | .02½ | .03 | .04 | .03 | .03 | .03½ | .02½ | .03 | .03 | .04 | .03 |
| .07 | 1.55 | Sweet potatoes, per lb | .12 | .09 | .10 | .06 | .10 | .. | .12½ | .10 | .08 | .06 | .08 | .07 | .08 |
| .04 | 2.00 | Onions, per lb | .05 | .08 | .03 | .03 | .03½ | .04 | .05 | .03 | .03 | .02 | .03 | .03 | .03 |
| .14 | .89 | Navy beans, dry, per lb | .14 | .14 | .16 | .14 | .15 | .. | .15 | .13 | .14 | .14 | .14 | .13 | .12½ |
| .16 | 17.77 | String beans, cnd., No. 2, stnd., 1 lb. 3 oz | .15 | .16 | .20 | .18 | .20 | .. | .25 | .16 | .22 | .15 | .10 | .20 | .18 |
| .15 | 3.49 | Corn, canned, No. 2, stnd., 1 lb. 4 oz | .15 | .18 | .20 | .18 | .18 | .25 | .23 | .16 | .20 | .15 | .20 | .20 | .15 |
| .15 | 6.00 | Peas, canned, No. 2, stnd,, 1 lb. 4 oz | .18 | .16 | .20 | .18 | .15 | .25 | .20 | .16 | .20 | .18 | .22 | .20 | .15 |
| .15 | .93 | Split peas, per lb | .15 | .12 | .13 | .14 | .15 | .16 | .15 | .12 | .16 | .14 | .13 | .. | .15 |
| .23 | 1.24 | Peanuts, unshelled, per lb | .. | .. | .40 | .25 | .15 | .. | .20 | .25 | .25 | .. | .20 | .. | .30 |
| .10 | 10.00 | Tomatoes, cnd., No. 3, stnd., 2 lb. 1 oz | .25 | .18 | .19 | .18 | .22 | .30 | .23 | .20 | .22 | .22 | .15 | .24 | .20 |
| .04 | 3.33 | Cabbage, per lb | .05 | .04 | .03 | .03 | .03 | .. | .04 | .04 | .03 | .03 | .03 | .04 | .04 |
| .05 | 2.94 | Beets, per lb | .03 | .04 | .04 | .03 | .03½ | .. | .05 | .04 | .03 | .03 | .10 | .04 | .. |
| .04 | 2.22 | Turnips, per lb | .05 | .05 | .03 | .04 | .03½ | .. | .03 | .03 | .03 | .02 | .01½ | .04 | .03 |
| | | MEATS AND FISH— | | | | | | | | | | | | | |
| .37 | 5.69 | Beef, round steak, per lb | .40 | .48 | .35 | .45 | .45 | .. | .40 | .60 | .45 | .40 | .35 | .30 | .35 |
| .41 | 8.20 | Veal cutlets, per lb | .40 | .35 | .38 | .50 | .65 | .. | .45 | .60 | .60 | .50 | .50 | .. | .45 |
| .33 | 3.79 | Leg of mutton, per lb | .40 | .26 | .. | .. | .. | .. | .30 | .28 | .38 | .40 | .30 | .. | .34 |
| .38 | 4.52 | Leg of lamb, per lb | .45 | .38 | .35 | .38 | .40 | .. | .35 | .34 | .40 | .45 | .38 | .32 | .40 |
| .38 | 3.09 | Pork chops, per lb | .40 | .40 | .38 | .35 | .45 | .. | .40 | .35 | .40 | .35 | .32 | .35 | .40 |
| .58 | 3.05 | Ham, sliced, medium fat, per lb | .60 | .60 | .68 | .50 | .60 | .. | .70 | .60 | .60 | .60 | .55 | .60 | .60 |
| .47 | 16.20 | Chickens, broilers, per lb | .48 | .42 | .50 | .60 | .55 | .. | .60 | .40 | .60 | .45 | .55 | .. | .40 |
| .29 | 8.02 | Salt cod, per lb | .30 | .35 | .25 | .28 | .33 | .. | .20 | .24 | .30 | .25 | .25 | .30 | .30 |
| .30 | 3.00 | Salt mackerel, per lb | .30 | .35 | .35 | .28 | .. | .. | .25 | .35 | .35 | .30 | .25 | .30 | .30 |
| .35 | 7.77 | Halibut, per lb | .35 | .40 | .38 | .42 | .. | .. | .45 | .40 | .40 | .30 | .45 | .30 | .40 |
| .34 | 5.31 | Salmon, per lb | .35 | .42 | .35 | .40 | .. | .. | .40 | .40 | .45 | .30 | .. | .30 | .40 |
| .29 | 4.39 | Salmon, canned, No. 1, Red Alaska, 1 lb | .30 | .35 | .30 | .28 | .30 | .. | .30 | .28 | .32 | .28 | .25 | .32 | .35 |
| .29 | 7.81 | Trout, per lb | .35 | .. | .25 | .. | .. | .. | .. | .33 | .35 | .35 | .15 | .30 | .35 |
| .26 | 8.12 | Whitefish, per lb | .35 | .35 | .25 | .20 | .. | .. | .25 | .12½ | .. | .30 | .. | .25 | .35 |
| | | MISCELLANEOUS— | | | | | | | | | | | | | |
| .32 | 1.42 | Cocoa, bulk, per lb | .25 | .28 | .25 | .35 | .25 | .35 | .. | .25 | .30 | .25 | .40 | .30 | .40 |
| .40 | 6.66 | Eggs, fresh gathered, firsts, per doz | .45 | .61 | .64 | .70 | .75 | .70 | .80 | .60 | .50 | .62 | .68 | .50 | .65 |
| .15 | 4.84 | Milk, per qt | .13 | .11 | .16 | .15 | .16½ | .14 | .17 | .16 | .13 | .16 | .18 | .15 | .14 |
| .43 | 2.06 | Cheese, American, cheddar, per lb | .43 | .38 | .45 | .38 | .42 | .38 | .40 | .41 | .40 | .45 | .47 | .35 | .48 |



# PRICES 1919

| Lynchburg, Va. | Wheeling, W. Va. | Atlanta, Ga. | Birmingham, Ala. | Jackson, Miss. | Little Rock, Ark. | Chicago, Ill. | Memphis, Tenn. | Nashville, Tenn. | New Orleans, La. | Lexington. Ky. | Raleigh, N. C. | Columbia, S. C. | Detroit, Mich. | St. Paul, Minn. | Madison, Wisc. | Des Moines, Ia. | Boise, Idaho | Tucson, Ariz. | Reno, Nev. | Denver, Colo. | Los Angeles, Calif. | Portland, Ore. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .... | $3.30 | $3.25 | $3.70 | ..... | $3.00 | $2.85 | $3.48 | $3.20 | $3.60 | $3.50 | $3.19 | $3.30 | $2.70 | $2.90 | $3.00 | $3.20 | $2.75 | $3.05 | $3.10 | $2.75 | $3.03 | $3.00 |
| $1.90 | .. | 1.50 | .. | .. | .. | 1.45 | 1.64 | 1.55 | 1.80 | .. | .. | 1.71 | .98 | 1.50 | 1.15 | 1.75 | 1.60 | 1.95 | .. | 1.25 | 1.68 | 1.75 |
| .70 | .70 | .90 | .90 | .85 | .43 | .65 | .35 | .70 | .80 | .80 | .70 | .75 | .68 | .65 | .65 | .75 | .75 | .80 | .75 | .65 | .66 | .70 |
| 15 | .08 | .10 | .15 | .15 | .20 | .10 | .10 | .08 | .13 | .15 | .15 | .15 | .09 | .12 | .11 | .13 | .12½ | .15 | .14 | .11 | .11 | .12 |
| .. | .. | .40 | .. | .40 | .. | .30 | .. | .. | .37 | .30 | .. | .. | .35 | .35 | .55 | .. | .. | .40 | .40 | .25 | .. | .. |
| 06 | .05 | .06 | .05 | .06 | .06 | .05 | .04 | .05 | .05 | .05 | .06 | .05 | .04 | .07 | .05 | .06 | .07½ | .08 | .07½ | .05 | .07 | .07 |
| .. | .. | .. | .. | .. | .. | .05 | .. | .12 | .10 | .10 | .. | .. | .05 | .07 | .06 | .. | .08 | .08 | .08 | .06 | .. | .08 |
| .. | .08 | .10 | .20 | .15 | .12 | .10 | .14 | .07 | .08 | .15 | .10 | .. | .06½ | .10 | .06½ | .. | .08 | .15 | .11½ | .08 | .05 | .08 |
| .. | .08 | .10 | .15 | .14 | .. | .08 | .. | .07 | .07½ | .07 | .10 | .. | .04½ | .08 | .06½ | .. | .08 | .. | .09 | .08 | .08 | .08 |
| .. | .. | .13 | .. | .. | .. | .12 | .. | .. | .12 | .15 | .15 | .12½ | .14 | .12½ | .10 | .. | .12 | .15 | .12 | .10 | .16 | .12 |
| .10 | .11 | .10 | .20 | .12 | .. | .10 | .16 | .12½ | .12½ | .14 | .15 | .11 | .10 | .12 | .08 | .10 | .12½ | .14 | .13 | .12½ | .12½ | .. |
| .. | .. | .05½ | .12 | .07 | .12 | .07 | .14 | .12 | .05 | .10 | .10 | .06 | .08 | .10 | .. | .10 | .. | .25 | .. | .12½ | .06½ | .10 |
| .15 | .14 | .12 | .15 | .15 | .12 | .13 | .12 | .12 | .12 | .15 | .15 | .15 | .10 | .12½ | .10 | .15 | .15 | .15 | .15 | .15 | .13 | .15 |
| .15 | .15 | .14 | .15 | .14 | .15 | .13 | .10½ | .12 | .12 | .15 | .15 | .15 | .07 | .15 | .12½ | .15 | .15 | .12½ | .15 | .12½ | .12 | .15 |
| .15 | .07 | .15 | .. | .20 | .15 | .12 | .13 | .12 | .10 | .20 | .15 | .13 | .05 | .15 | .06 | .15 | .10 | .25 | .12 | .20 | .12 | .20 |
| .10 | .12 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .10 | .08 | .08 | .09 | .10 | .12½ | .10 | .10 | .10 | .06 | .10 |
| .. | .22 | .20 | .. | .40 | .20 | .22 | .18 | .20 | .20 | .30 | .. | .30 | .18 | .25 | .18 | .25 | .17 | .17½ | .25 | .20 | .20 | .25 |
| .. | .22 | .20 | .. | .. | .. | .22 | .. | .20 | .20 | .30 | .. | .. | .18 | .25 | .18 | .25 | .17 | .17½ | .25 | .20 | .20 | .25 |
| .. | .14 | .15 | .28 | .20 | .10 | .15 | .15 | .07 | .10 | .20 | .18 | .20 | .15 | .12½ | .. | .10 | .10 | .15 | .12 | .10 | .12½ | .12 |
| .11 | .11 | .11 | .11 | .10½ | .11 | .10½ | .11 | .10½ | .10½ | .11 | .11 | .11 | .10 | .11 | .10 | .11 | .11½ | .11½ | .11 | .11 | .11 | .11 |
| .85 | .75 | .79 | 1.00 | 1.00 | .90 | .75 | .71 | .75 | .95 | .85 | .95 | .90 | .68 | .85 | .70 | .90 | 1.00 | 1.00 | 1.05 | .90 | .90 | 1.05 |
| .30 | .. | .40 | .30 | .. | .06 | .43 | .40 | .40 | .40 | .40 | .25 | .. | .32 | .40 | .35 | .40 | .25 | .45 | .30 | .40 | .35 | .35 |
| .58 | .60 | .60 | .65 | .60 | .65 | .58 | .55 | .55 | .50 | .60 | .67 | .75 | .50 | .60 | .55 | .55 | .60 | .80 | .70 | .60 | .68 | .65 |
| .70 | .70 | .65 | .70 | .61 | .70 | .53 | .55 | .55 | .65 | .60 | .65 | .66 | .58 | .50 | .58 | .60 | .60 | .65 | .53 | .52 | .57 | .65 |
| .35 | .33 | .27½ | .33 | .33 | .36 | .33 | .29 | .33 | .32 | .35 | .35 | .37 | .28 | .33 | .30 | .35 | .30 | .36 | .35 | .30 | .30 | .35 |
| .. | .40 | .35 | .45 | .41 | .40 | .38 | .. | .35 | .35 | .40 | .41 | .44 | .29 | .40 | .36 | .35 | .40 | .. | .42 | .35 | .41 | .40 |
| 35 | .35 | .35 | .40 | .. | .36 | .37 | .33 | .40 | .35 | .40 | .38 | .. | .33 | .35 | .31 | .35 | .40 | .. | .. | .35 | .36 | .40 |
| 2.00 | 2.00 | 2.00 | .. | 3.00 | 1.12 | 1.75 | 2.40 | 2.00 | 1.75 | 2.50 | .. | 3.00 | .80 | 1.50 | .. | .. | 1.50 | 1.80 | .95 | 3.00 | .. | 2.40 |
| .. | .75 | .75 | .. | .80 | .. | .70 | .45 | .78 | .75 | .70 | .75 | .90 | .70 | .75 | .65 | .. | .75 | .85 | .80 | 1.00 | .60 | .80 |
| .. | .75 | .75 | .. | .40 | .. | .70 | .64 | .65 | .75 | .75 | .. | .. | .68 | .75 | .70 | .75 | .75 | .85 | .80 | .75 | .70 | .75 |
| .. | .. | .75 | .. | .. | .. | .75 | .. | .. | .70 | .75 | .. | .85 | 1.00 | .. | .. | .. | .75 | .. | .. | .75 | .. | 1.25 |
| .35 | .30 | .30 | .35 | .56 | .30 | .25 | .26 | .25 | .35 | .30 | .35 | .40 | .23 | .25 | .23 | .25 | .40 | .35 | .30 | .25 | .25 | .25 |
| .18 | .. | .17½ | .25 | .17½ | .25 | .25 | .18 | .20 | .20 | .20 | .23 | .20 | .25 | .25 | .18 | .. | .18 | .25 | .20 | .25 | .22 | .23 |
| .20 | .22 | .20 | .20 | .30 | .25 | .18 | .19 | .23 | .20 | .25 | .25 | .25 | .16 | .20 | .20 | .35 | .20 | .25 | .15 | .25 | .22 | .28 |
| .30 | .30 | .35 | .35 | .40 | .. | .35 | .. | .38 | .25 | .35 | .30 | .30 | .28 | .30 | .32 | .30 | .35 | .40 | .32 | .30 | .28 | .35 |
| .40 | .35 | .35 | .40 | .45 | .29 | .35 | .. | .25 | .25 | .45 | .35 | .45 | .30 | .30 | .30 | .40 | .30 | .30 | .35 | .45 | .26 | .35 |
| .18 | .15 | .17½ | .15 | .20 | .15 | .15 | .11 | .15 | .15 | .15 | .20 | .18 | .11 | .15 | .13 | .18 | .17½ | .20 | .15 | .15 | .12 | .15 |
| .18 | .20 | .17½ | .17½ | .25 | .16 | .18 | .15 | .15 | .15 | .20 | .25 | .20 | .15 | .18 | .18 | .20 | .20 | .20 | .18 | .25 | .17½ | .20 |
| .04 | .. | .03½ | .05 | .04 | .03 | .02½ | .03 | .03 | .04 | .03½ | .04 | .05 | .02 | .02 | .02½ | .03 | .02 | .04 | .02 | .02 | .03 | .02 |
| .05 | .07½ | .03½ | .05 | .03 | .. | .08 | .03 | .06 | .05 | .06½ | .04 | .05 | .07½ | .10 | .09 | .10 | .10 | .10 | .06 | .07 | .03 | .05 |
| .04 | .03 | .05 | .05 | .05 | .04 | .04 | .03 | .03½ | .04 | .04 | .10 | .05 | .02½ | .03 | .03 | .05 | .04 | .04 | .02½ | .04 | .02½ | .05 |
| .15 | .12½ | .12½ | .17½ | .17 | .14 | .14 | .12 | .12 | .14 | .16 | .18 | .18 | .10 | .12 | .12½ | .12½ | .12½ | .15 | .12 | .15 | .12½ | .12 |
| .20 | .15 | .20 | .20 | .30 | .17 | .20 | .16 | .14 | .20 | .25 | .20 | .25 | .15 | .18 | .20 | .20 | .20 | .25 | .20 | .20 | .18 | .25 |
| .20 | .20 | .20 | .25 | .20 | .16 | .20 | .18 | .15 | .18 | .25 | .25 | .25 | .15 | .18 | .15 | .15 | .20 | .20 | .20 | .20 | .17 | .20 |
| .25 | .20 | .25 | .25 | .30 | .16 | .20 | .18 | .15 | .18 | .25 | .25 | .25 | .14 | .15 | .14 | .15 | .20 | .20 | .20 | .25 | .18 | .25 |
| .. | .15 | .15 | .. | .. | .. | .14 | .. | .15 | .15 | .20 | .20 | .20 | .11 | .15 | .10 | .15 | .12½ | .. | .14 | .20 | .13 | .10 |
| .. | .. | .15 | .12 | .. | .. | .25 | .18 | .20 | .30 | .. | .. | .. | .20 | .20 | .20 | .25 | .30 | .. | .25 | .25 | .20 | .20 |
| .20 | .23 | .15 | .25 | .18 | .21 | .22 | .19 | .18 | .20 | .20 | .25 | .25 | .18 | .18 | .18 | .25 | .20 | .20 | .18 | .20 | .. | .25 |
| .05 | .04 | .06 | .05 | .06 | .04½ | .03 | .03 | .03 | .04 | .04 | .06 | .04 | .02½ | .03 | .05 | .05 | .05 | .10 | .03 | .03½ | .02½ | .04 |
| .. | .. | .07½ | .. | .07 | .. | .03 | .. | .05 | .04 | .. | .. | .10 | .02 | .03 | .. | .05 | .12½ | .05 | .03 | .05 | .02 | .05 |
| .. | .. | .04 | .05 | .05 | .. | .04 | .05 | .04 | .08 | .. | .05 | .05 | .03 | .03 | .. | .05 | .12½ | .05 | .02½ | .02½ | .02 | .03 |
| .35 | .. | .35 | .35 | .30 | .35 | .40 | .35 | .35 | .35 | .40 | .40 | .45 | .35 | .35 | .30 | .35 | .. | .35 | .32 | .30 | .28 | .28 |
| .40 | .. | .35 | .35 | .30 | .25 | .35 | .35 | .35 | .35 | .45 | .35 | .50 | .35 | .35 | .33 | .35 | .. | .45 | .40 | .40 | .48 | .30 |
| .40 | .. | .35 | .35 | .35 | .25 | .28 | .30 | .35 | .33 | .40 | .30 | .45 | .32 | .30 | .28 | .. | .. | .45 | .28 | .30 | .. | .28 |
| .40 | .. | .40 | .40 | .35 | .45 | .38 | .40 | .40 | .40 | .45 | .35 | .45 | .35 | .35 | .35 | .. | .. | .. | .35 | .35 | .35 | .38 |
| .40 | .. | .35 | .40 | .40 | .35 | .35 | .30 | .30 | .40 | .40 | .40 | .48 | .35 | .35 | .33 | .35 | .. | .50 | .40 | .30 | .45 | .42 |
| .55 | .. | .50 | .50 | .50 | .40 | .55 | .60 | .40 | .45 | .50 | .50 | .60 | .50 | .60 | .80 | .50 | .. | .55 | .60 | .60 | .60 | .55 |
| .40 | .. | .45 | .40 | .40 | .35 | .35 | .. | .40 | .38 | .45 | .50 | .50 | .. | .35 | .50 | .40 | .. | .. | .60 | .40 | .70 | .. |
| .35 | .. | .. | .. | .. | .. | .30 | .. | .. | .25 | .30 | .. | .40 | .25 | .35 | .50 | .30 | .. | .. | .. | .20 | .25 | .20 |
| .. | .. | .35 | .. | .. | .30 | .25 | .. | .20 | .20 | .25 | .25 | .40 | .35 | .. | .50 | .. | .. | .. | .. | .25 | .35 | .25 |
| .. | .. | .. | .. | .. | .35 | .30 | .30 | .. | .. | .35 | .. | .. | .. | .33 | .28 | .35 | .. | .. | .40 | .35 | .30 | .30 |
| .. | .. | .. | .25 | .. | .35 | .30 | .35 | .. | .25 | .30 | .25 | .30 | .35 | .33 | .28 | .35 | .. | .. | .35 | .35 | .40 | .30 |
| .20 | .. | .30 | .35 | .. | .23 | .33 | .25 | .19 | .23 | .35 | .39 | .35 | .33 | .. | .27 | .30 | .. | .. | .. | .35 | .35 | .30 |
| .15 | .. | .25 | .30 | .. | .30 | .28 | .30 | .. | .25 | .30 | .25 | .. | .30 | .. | .28 | .40 | .. | .. | .30 | .40 | .. | .. |
| .. | .. | .10 | .. | .. | .35 | .28 | .30 | .. | .20 | .30 | .12½ | .. | .30 | .. | .25 | .30 | .. | .. | .. | .35 | .. | .. |
| .. | .30 | .35 | .. | .55 | .42 | .25 | .. | .30 | .40 | .. | .. | .. | .30 | .30 | .30 | .45 | .30 | .. | .48 | .31 | .18 | .30 |
| .60 | .60 | .65 | .60 | .65 | .60 | .48 | .60 | .40 | .55 | .50 | .60 | .75 | .57 | .53 | .60 | .55 | .55 | .65 | .50 | .45 | .46 | .60 |
| .. | .16 | .. | .. | .. | .. | .15 | .20 | .10 | .17 | .18 | .19 | .. | .15 | .14 | .. | .15 | .15 | .18 | .12 | .13 | .15 | .16 |
| .45 | .48 | .48 | .45 | .50 | .45 | .42 | .39 | .40 | .42 | .45 | .45 | .50 | .45 | .42 | .38 | .45 | .45 | .45 | .35 | .45 | .42 | .50 |

# The Sources of Britain's Sugar

THE details of the Custom House figures of the United Kingdom for the years 1918 and 1917 have just reached us and appear herewith. It is interesting to note that this is the first time that the figures of 1917 have been presented, says the American Sugar Bulletin.

UNITED KINGDOM STATISTICS

| Board of Trade Figures | IMPORTS | | (Tons=2,240 lbs.) | |
|---|---|---|---|---|
| | December | | Jan. 1-Dec. 31 | |
| Imports, raws, from | 1918 | 1917 | 1918 | 1917 |
| Cuba | 18,100 | ...... | 827,700 | 699,339 |
| British America | 600 | 2,400 | 115,400 | 129,400 |
| Surinam | 200 | 300 | 2,900 | 2,500 |
| Peru | 1,300 | 3,200 | 40,100 | 50,900 |
| Brazil | 600 | 200 | 8,800 | 23,500 |
| Mauritius | 4,500 | 18,300 | 95,500 | 31,300 |
| Java | ...... | 39,200 | 185,110 | 270,700 |
| Philippines | ...... | ...... | ...... | 6,465 |
| Other countries | ...... | ...... | 3,095 | 2,131 |
| Total raw | 25,300 | 63,600 | 1,278,605 | 1,216,235 |
| Imports, refined, from | | | | |
| United States | 2,600 | 300 | 5,300 | 37,600 |
| Holland | ...... | 2,900 | 6,026 | 6,800 |
| Mauritius | ...... | 8,000 | 3,139 | 19,900 |
| Java | ...... | 4,100 | 500 | 71,800 |
| Other countries | 200 | ...... | 5,900 | 33,283 |
| Total Refined | 2,800 | 15,300 | 20,865 | 169,383 |
| Total Imports | 28,100 | 78,900 | 1,299,470 | 1,385,618 |

CONSUMPTION

| | December | | Jan. 1-Dec. 31 | |
|---|---|---|---|---|
| | 1918 | 1917 | 1918 | 1917 |
| British refined | 59,700 | 56,600 | 739,100 | 713,900 |
| Foreign refined | 500 | 20,200 | 43,900 | 153,600 |
| Unrefined | 9,500 | 15,400 | 158,200 | 231,700 |
| Total | 69,700 | 92,200 | 941,200 | 1,099,200 |

The year 1918 shows a net decrease in receipts of only 86,148 tons, and in raw sugar, actually shows an increase of 62,370 tons. The chief reduction is in the imports of refined sugar, which fell off 148.518 tons. These refined imports include Java whites as well as American granulated.

The decline of 156,890 tons in the receipts from Java is the largest of any single country. Receipts from Mauritius showed an increase of 47,400 tons, indicating that less of these sugars went to France than in 1917. Receipts of Cuban raws, of course, showed a marked increase amounting to 127,361 tons. The receipts were practically all of cane sugar except about 6,000 tons in each year from Holland.

While the total receipts differ little in the two years, the official figure of consumption is 158,000 tons less for 1918 than for 1917. A corresponding increase of 185,100 tons in the stocks on January 1st was accumulated to provide against interference with shipping during the present winter.

There has always been a discrepancy between the receipts in the British Islands and the official figure of consumption.

Our correspondent in London explains this as follows:

The figures for consumption of British refined cover only duty paid deliveries, excluding those sent abroad for the forces, and for which no figures are disclosed.

| | Tons |
|---|---|
| The initial stocks and year's imports of raws, less unrefined delivered for consumption, come to | 1,263,450 |
| Deduct raw stock left at end year | 347,700 |
| Balance used for refining? | 915,750 |
| Allow, say, 7 per cent refining loss | 64,100 |
| Amount of British refined produced? | 851,650 |
| Home consumption, duty paid | 739,100 |
| Balance, apparently used for forces abroad | 112,550 |

The official figures indicate a consumption of 62.50 pounds of sugar per person during the year 1918, and 73.00 pounds in 1917. If the 112,550 tons which our correspondent shows are added to the official figure, the rate in 1918 is 70 pounds, and a similar calculation in 1917 shows 85 pounds. These last figures compare with 74.18 and 78.40 pounds for the corresponding years in the United States.

Inasmuch as previous to the war the men in the British army in France would have been home-consumers and as their consumption is included in no other statistics, the higher figures of British consumption appear the more correct.

Our correspondent further advises in regard to the lightening of restrictions that, although it has recently been announced that our present ration books, expiring in March, are unlikely to be renewed, it is intimated that certain articles, including sugar, are not likely to be freed from regulation until some time later.

There seems to be an impression here, says our correspondent, though there is nothing official yet, that somewhere towards the middle of the year there may be some relaxation of the present rigid control of the article, possibly to the extent of permitting resumption of purchasing and selling by the regular traders here. The extent to which any such concession could be utilized for procuring supplies beyond those contracted by the Commission would necessarily be largely dependent upon tonnage facilities, and apart from Javas, which take two months to get here, there do not seem any large supplies likely to be available beyond the share of the Cuban crop already contracted by the allied governments. No complete termination of sugar control is generally looked for until we approach the next Cuban crop.

Our Glasgow correspondent reports that beside the increase of the domestic sugar ration to ¾ pound per head per week on January 27th, the further announcement had been made that supplies to manufacturers and confectioners and other commercial consumers will be brought up to the consumption level of 1915. The Royal Commission has also announced that the restrictions limiting the importation of molasses, syrup, etc., will be removed on and after February 24th. The controlled prices of syrup, viz.: 60/- per cwt. in barrels, and 80/- per cwt. in tins, will remain in force as maximum prices only.

Our Glasgow correspondent further reported on January 24th: "A good demand has been experienced for the proportion of Clyde refined sugar at the disposal of trade buyers at the controlled rates. A cargo of Peruvian raw sugar has arrived at Greenock for refiners.

"The Royal Sugar Commission has made very small allocations this week of foreign refined warehoused at Glasgow and Leith."

Trade reports state that the Royal Commission on the sugar supply has decided that in future sugar grown and produced in any of the British Dominions or Possessions may be imported under license by private individuals or firms who desire to do so. The conditions of the license will provide for the grading of sugar so imported after arrival and for the same system of controlling its sale and distribution as is now applicable to sugars imported by private enterprise from the British West Indies.

The Commission purchased 75,000 tons of British West Indian new crop sugar for the United Kingdom during the past fall, and as a set-off the Canadian Food Board has purchased 120,000 tons of the San Domingo crop, which will be delivered by the end of July.

## Chinese Eggs Again

The recent arrival of 250 tons of canned eggs at Seattle from China serves to call attention to the resumption of this traffic, which was held up during the war on account of shortage of shipping space. More of these cargoes are said to be coming.

## The Fear of Technical Terms

If a baker put in his window a sign, "we use sodium chloride in our bread," people would want him arrested; and if he also advertised the fact that he found Saccharomyces Cerevisiae an excellent agent for leavening the dough, his customers would tire themselves out running after another baker.

Big words may sound well in sermons, they may be accepted as evidence of erudition in the school master; they are supposed to be very effective before a jury—but we want our food made by formulas we understand, and labeled with words that are free from every suspicion of dubious meaning. Salt and sodium chloride are the same thing. The yeast plant gets into the dictionary as Saccharomyces Cerevisiae but the people who buy baker's bread, even if they have not forgotten their Latin or Greek, would be disturbed if the label on the loaf went out of the way to talk in technical terms.

The fear of scientific phrases may originate in the habit a mother has of resorting to long words when telling her friend of Mary's misdeeds in Mary's presence, thereby arousing in the mind of her young daughter suspicion that all is not well. It no doubt explains the dread of the doctor's prescription, which, if it were written in plain English, would not be one-half so terrifying and as the doctor evidently still thinks, though he won't say so, far less effective. Certain it is that sugar of milk would be a useless medication, although Saccharum Lactis fills an important niche on the druggist's shelves.

But the real reason why technical terms damn any food to which they are applied is probably because we still look on the food manufacturer with suspicion, and whenever he tries out his knowledge of Latin we wonder why, and failing of an explanation, conclude that he, like the druggist, is up to tricks that he doesn't care to have us know about.

For years manufacturers have fought against declaring the facts about their products on the label. Sometimes, no doubt, they have wished to keep the secrets of their formulas to themselves; sometimes they have had a very real fear that more complete knowledge would permanently pall the consumer's appetite. But the chief reason for wishing the label to declare little besides the brand and manufacturer is the knowledge that it is never safe to talk too much and that the consumer is more apt to be scared than enlightened by technical information.

This condition fortunately is passing. As the consumer learns to ignore the false assertions and half truths preached by self appointed protectors of the food supply and to trust his food instead of fear it he will be more willing to accept the manufacturers' guarantee of quality and even on occasion to swallow technical terms without blinking.

## Standardize Restaurants

Money comes hard in the restaurant business. Not more than ten per cent of the first-class hotels make a profit out of their restaurants. The other ninety per cent either break even or run at a loss.

Of course these figures are the proprietors'. We believe they are true. Why, however, cannot the restaurant business be standardized so that the distance between the five-cent cup of coffee at the Dairy Lunch room and the fifty-cent service at the fashionable hotel be not so great? We are glad to pay for quiet service. Some of us do not object to music with our meals, but the overhead in the modern hotel is so great that the restaurant proprietor is a subject for much adverse criticism.

### Molasses vs. Sugar

**THE molasses jug once filled a corner in every pantry. Today molasses is a disappearing delicacy, rarely used except in special dishes. It must be admitted that modern molasses is greatly different from the old-fashioned open-kettle New Orleans product which was full of sugar and fine of flavor.**

**Modern sugar planters are interested in selling sugar, their real crop, and not in molasses, which is a by-product, and every year they are taking more sugar out of the molasses. A new process of sugar making has just been announced which takes practically all of the sucrose out of the syrup. The sugar chemists have found that the reason why sucrose does not crystallize out of the finer mother liquors which are sold as molasses is that the water in the molasses prevents the crystallization. The discovery of a method by which the water may be removed and the sugars crystallized out will add three and one-half per cent to the sugar crop. This means a lot of sugar.**

## Capital and Labor Not Sole Problem

THE farmer is neither a capitalist nor a laborer, as the terms are usually understood; he is, however, a good deal of both, but he doesn't quarrel with himself.

This was the somewhat whimsical way Dean Eugene Davenport of the Illinois state college of agriculture pointed out to a farmers' week audience at the New York state college last week that the problem of capital and labor is not the only one demanding attention today.

The farmer, for example, has a big problem in the matter of wages. Dean Davenport says no matter how much agricultural education a man may get, nor how good machinery he may use, he cannot till enough land to bring him in as great a labor wage as the man who has ten dollars invested in a pick and shovel.

The farmer cannot pay $4.75 a day to the man who works the land on top of the ground, as the coal operator can pay the miner who is digging out the coal, directly underneath, it may be; so the farmer cannot hire help.

Nor can the farmer give his children as good an education as the man who lives in the village or city unless he gives up his business of farming and moves to town.

One difficulty with farming as a business, said the speaker, is that as a usual thing it is a small business. The farmer, therefore, can't do business on a ten-year average. If he gets a big loss, it nearly puts him out of business and frightens him. What he needs is not so much bigger prices as steadier markets.

Farmers need organizations, but they need to know what they are organizing for. The great needs today are organizations for production and marketing, he said.

## Board Has Moved

The United States Sugar Equalization Board, which has for some time had its offices in the Food Administration building in Washington, has removed to New York City. Its permanent quarters from now on will be at 111 Wall street, New York City.

## Even Paralyzed Milk

The milkman (to suspicious customer): "You won't find nothing wrong with that milk, ma'am. All our milk is paralyzed by a government anarchist."—*Exchange.*

# Draw Model Law For Egg Industry Regulation

## Food Officials and Men in the Industry Decide on Measure to be Introduced in All States

A JOINT conference of representatives of State Poultry & Egg Shippers' Associations and the executive committee of the National Poultry, Butter & Egg Association with the Food & Drug Control Officers of the various States, of the Bureau of Chemistry, U. S. Department of Agriculture, and representatives of the U. S. Food Administration, was held at St. Louis January 24-25, for the purpose of drafting a model egg candling law.

Dr. Alsberg, who presided, briefly stated the purpose of the conference by outlining what was done at a previous meeting held at Washington, D. C., January 6, 1919, which resulted in this larger conference at St. Louis. He also stated that a number of letters had come to the Bureau of Chemistry from people in the egg trade expressing the desire that some plan be arranged to continue the candling of eggs this season along the same lines followed last year, and that in view of the fact it seemed improbable any regulations could or would be promulgated from Washington that the conference should agree upon a uniform candling bill to be enacted by the legislatures of the producing states at least, even if it cannot be passed in all the states and that as most of the legislatures were now in session it was important to agree upon a bill at once and get the movement going so as to cover the candling period of 1919.

### Illinois Law

John B. Newman, Dairy and Food Commissioner of Illinois, was then called upon to explain the operation of the Illinois law, the effect of which has been especially successful during the past two or three years in eliminating the bad egg in Illinois. Mr. Newman read the law and emphasized the importance of having all dealers under license so that they could be controlled and urged the candling of all eggs when purchased from the producer and if possible returning to the producer the bad eggs that are rejected from his lot of eggs. Mr. Newman called special attention to the fact that, while some opposition was encountered in the first year, after a few prosecutions the trade began to realize the advantage of marketing eggs while fresh and avoiding the loss entailed by holding them. This was especially noticeable in the case of the farmers who received the greater benefit. He also said that their greatest difficulty was with the hucksters and country store keepers who were inclined to take the eggs from the farmers without candling, claiming that it was impossible to do the work. However, they have since been shown that the work can be done with but little difficulty and with wonderful results in the improvement of the quality of the eggs sent to market. He further stated that he had received the unqualified co-operation of the National Poultry, Butter & Egg Association, the Chicago Butter & Egg Board, and the Illinois Poultry & Egg Shippers' Association in the formulation of regulations and the enforcement of the law.

Mr. Newman read the law covering egg breaking establishments and emphasized the importance of having licenses and regulations governing these establishments. The meeting adjourned until evening.

At the evening session the committee which had been appointed reported drafts of two bills, one to be known as the "Uniform Good Egg Law" and the other "The Uniform Egg Breaking Establishment." Both were adopted, and with modifications to suit the legal requirements will be introduced in each state. The laws as drawn up, are as follows:

### The Uniform Good Egg Law

A BILL ENTITLED

AN ACT TO PROVIDE FOR THE REGULATION OF TRAFFIC IN EGGS, TO PROVIDE FOR THE LICENSING OF DEALERS IN EGGS; TO PREVENT FRAUD AND MISREPRESENTATION IN DEALING IN EGGS AND TO PREVENT THE SALE OF EGGS UNFIT FOR HUMAN FOOD.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF.......

SEC. 2. That no person, firm or corporation shall sell, offer or expose for sale, or have in his possession, or traffic in, any egg unfit for human food, unless the same is broken in shell and then denatured so that it cannot be used for human food. For the purposes of this Act, an egg shall be deemed unfit for human food if it be addled or moldly, a black rot, a white rot, or a blood ring; or if it has an adherent yolk, or a bloody or green white; or if it be incubated beyond the blood ring stage; or if it consist in whole or in part of a filthy, decomposed or putrid substance.

SEC. 3 That no person, firm or corporation shall, in buying or selling eggs, take or give a greater or less dockage for eggs unfit for food as defined in Sec. 2 of this Act than the actual dockage which has been determined by the careful candling of the eggs so purchased or sold, and he shall keep such candling records as may be required by the Rules and Regulations of the (Enforcing Officer). All such records shall be open at all reasonable times for examination by the (Enforcing Officer) or Inspectors of the..........Department. The term "candling" as used herein shall be construed to mean the careful examination, in a partially dark room or place, of the whole egg by means of a strong light, the apparatus and method employed to be such as shall be approved by the (Enforcing Officer). Every person, firm or corporation engaged in the business of buying eggs in this state for resale or consignment shall provide and maintain an adequate place for the accurate candling of eggs and a suitable place for the proper handling of eggs which are intended to be used for human food.

SEC. 4 That there shall be placed on the top layer under the top flat of every case of candled eggs, by the person candling the same, a candling certificate. Such candling certificate shall be printed on cards or sheets of paper not smaller in size than 2⅜x4¼ inches and shall give the date of candling the eggs contained in the case in which it is placed, the name, initials or number of the person candling the eggs, and the name of this state and the license number of the person, firm or corporation for which the eggs were candled.

SEC. 5 That for the purpose of enforcing the provisions of this Act it is hereby required that ten days after this Act takes effect, no person, firm or corporation shall engage in the business of buying, selling, dealing in or trading in eggs, except those retailers who do not buy direct from the producers and who do not sell in lots greater than one case, without first obtaining from the (Enforcing Officer) a license to conduct such business. Such officer upon receipt of a proper application upon forms such as he may prescribe, accompanied by an annual license fee

**Based on a Standard of Quality**

FROM land and sea Armour secures the top grades of Nature's yield and prepares them so well that they are stamped with the Oval Label.

Armour's QUALITY PRODUCTS

In order to win this stamp of approval, every item of food included in the Oval Label line has first to pass severe chemical and dietary tests, and then finally meet with the approval of the Oval Label Committee.

This trade mark is your *grade mark* and guide to highest food quality. Look for it on Meats, Fish, Soups, Fruits, Vegetables, Pork and Beans, Condiments, Seasonings, Extracts, Peanut Butter, Evaporated Milk, Rice, Coffee, etc., etc.

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2932

of $......, shall thereupon issue to such person, firm or corporation an annual license to engage in such business.

SEC. 6 That the (Enforcing Officer) shall enforce the provisions of this Act and shall make suitable rules and regulations for carrying out its provisions. He shall determine the conditions under which eggs previously candled shall be recandled before sale in order to safeguard the purchaser against buying as a part of a lot, eggs unfit for human food.

SEC. 7 That any person, firm or corporation failing to comply with the requirements of, or violating any of the provisions of this Act, shall be guilty of a misdemeanor, and shall upon conviction for the first offense be fined not less than $15.00 nor more than $50.00 For the second offense he shall be fined not less than $50.00 nor more than $100.00, and for the third or any subsequent offense, he shall be fined not less than $100.00 nor more than $200.00, and in addition to such fines, in the discretion of the Court, for the first offense his license may be suspended for not more than thirty days; for the second offense not more than sixty days,; and for the third or any subsequent offense his license may be revoked.

SEC. 8 That the words used in this Act shall be construed to import the plural or singular, as the case demands.

SEC. 9 That all laws or sections of laws, and amendments thereto or thereof, now in force in this state, which may be in conflict with the provisions of this Act are hereby repealed.

## The Uniform Egg Breaking Establishment Law

A BILL ENTITLED

AN ACT TO CONTROL THE MANUFACTURE OR PREPARATION OF FROZEN, LIQUID, DESICCATED OR ANY OTHER FORMS OR WHOLE EGGS, YOLKS, WHITES OR ANY MIXTURE OF YOLKS AND WHITES FOR FOOD PURPOSES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF........

SEC. 2 That no person, firm or corporation shall engage in the State of .......... in the business of removing eggs from their shells, in the manufacture or preparation of frozen, liquid, desiccated or any other forms of whole eggs, yolks, whites or any mixture of yolks and whites for food purposes, with or without the addition of any other ingredients, without first obtaining a license from the (Enforcing Officer). Before such license shall be granted the (Enforcing Officer) or his agent shall inspect the establishment and equipment to be used in said Egg Breaking Establishment, and he shall also ascertain if the said establishment complies in method and equipment with the Sanitary Law and the rules and regulations which shall from time to time be established by the (Enforcing Officer) to govern these establishments. If, after such inspection, it shall appear that such establishment complies with the provisions of the Sanitary Law and the rules and regulations governing Egg Breaking Establishments, then the (Enforcing Officer) shall issue an annual license to said establishment upon payment annually of a fee of $.......

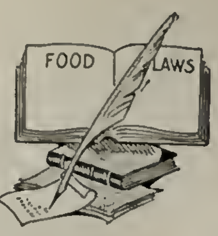
SEC. 3 That no person, firm or corporation shall manufacture or prepare in any egg breaking establishment an egg unfit for human food, unless the same is broken in shell and then denatured so that it cannot be used for human food. For the purposes of this Act, an egg shall be deemed unfit for human food if it be addled or moldy, a black rot, a white rot, or a blood ring; or if it has an adherent yolk, or a bloody or green white; or if it be incubated beyond the blood ring stage; or if it consist in whole or in part of a filthy, decomposed or putrid substance.

SEC. 4 That every egg breaking establishment shall include his license number as a part of the proper labeling of all cans or other receptacles in which frozen or desiccated egg products are sold or offered for sale for human food. The form and manner of placing or affixing said license number on containers shall be in accordance with regulations promulgated by the (Enforcing Officer).

SEC. 5 That any person, firm or corporation failing to comply with the requirements of, or violating any of the provisions of this Act, shall be guilty of a misdemeanor, and shall upon convicition for the first offense be fined not less than $5.00 nor more than $50.00. For the second offense he shall be fined not less than $50.00 nor more than $100.00, and for the third or any subsequent offense, he shall be fined not less than $100.00 nor more than $200.00 and in addition to such fines, in the discretion of the Court, for the first offense his license

(Continued on page 41)

# JUDGMENTS *under the* FOOD *and* DRUGS ACT



### *Beans*

**6102. Adulteration of beans.**
Adulteration of above product was alleged for the reason that it consisted in part of a filthy and decomposed vegetable substance. On April 27, 1917, the product was released, and a decree of condemnation and forfeiture was entered upon a $1,000 bond.

**6103. Adulteration of beans.**
Substantially the same as 6102. On April 27, 1917, released on bond.

**6122. Adulteration of pork and beans**
The above was alleged for reasons that it contained filthy animal and vegetable substances, and tomato sauce had been mixed. On August 21, 1917, judgment of condemnation and forfeiture was entered and product was released on $1,000 bond, and unfit portion of product destroyed.

**6132. Adulteration of pork and beans.**
Pork and beans alleged adulterated as it consisted of a decomposed vegetable substance and decomposed animal substance. On February 26, 1918, product was released on $1,000 bond and product ordered repicked, recanned and inspected.

**6133. Adulteration of pork and beans.**
Substantially the same as 6132.

**6134. Adulteration of pork and beans.**
The above article was alleged adulterated because it consisted of a partially decomposed vegetable and animal substance, same being labeled "Eureka Brand Pork and Beans with Tomato Sauce." On February 15, 1918, decree of condemnation and forfeiture was entered and product ordered destroyed.

**6135. Adulteration of Sweet Home Brand pork and beans in tomato sauce.**
Substantially the same as 6134.

**6137. Adulteration of oysters.**
Oysters were found to be mixed and packed with water, and substituted in part for oysters, which the article purported to be. On January 30, 1918, defendants entered plea of guilty and paid a $10 fine.

### *Eggs*

**6104. Adulteration of eggs.**
Adulteration of shell eggs was alleged because it consisted in part of a filthy, putrid and decomposed animal substance. On January 2, 1918, condemnation and forfeiture was entered and product ordered destroyed.

**6105. Adulteration of shell eggs.**
Substantially the same as 6104.

**6106. Adulteration of shell eggs.**
Substantially the same as 6104.

**6107. Adulteration of shell eggs.**
Substantially the same as 6104.

**6108. Adulteration of shell eggs.**
Substantially the same as 6104.

**6109. Adulteration of shell eggs.**
Substantially the same as 6104.

**6110. Adulteration of shell eggs.**
Substantially the same as 6104.

**6152. Adulteration of eggs.**
Adulteration of eggs was alleged for reasons that it consisted of a filthy, decomposed, and putrid animal substance. On Oct. 1, 1917, the defendants pleaded guilty and paid a $25 fine.

**6153. Adulteration of shell eggs.**
The above product was alleged adulterated for reasons that it consisted of a filthy, decomposed, or putrid animal substance. On Feb. 26, 1918, defendant pleaded guilty and paid a $10 fine and costs.

**6159. Adulteration of eggs.**
Substantially the same as 6152. On Sept. 17, 1917, defendant pleaded guilty and paid a fine of $5 and costs.

**6160. Adulteration of eggs.**
Substantially the same as 6152. On Jan. 8, 1918, jury found defendant guilty, and court imposed a fine of $25 and costs.

**6179. Adulteration of eggs.**
Substantially the same as 6152. On July 24, 1917, default order of court for separation of the good eggs from the bad, and the sale of the good eggs and destruction of the bad.

**6180. Adulteration of shell eggs.**
Substantially the same as 6152. On July 27, 1917, product was released on $500 bond.

**6183. Adulteration of eggs.**
Substantially the same as 6152. On Oct. 2, 1917, no claimant appearing for property, judgment of condemnation was entered and product ordered destroyed.

**6184. Adulteration of eggs.**
Substantially the same as 6183.

### *Feed*

**6111. Adulteration and misbranding of poultry feed.**
An article labeled "Every Day Scratch Feed" was alleged adulterated and misbranded for the reason that it contained screenings and weed seed and was labeled as being entirely composed of wheat, corn, etc. On November 8, 1917, claimant was released on $100 bond; product ordered relabeled.

**6112. Adulteration and misbranding of poultry feed.**
Substantially the same as 6111. On November 8, 1917, product released on $250 bond and ordered relabeled.

**6113. Adulteration and misbranding of Cottonseed Meal.**
The above article was charged as being adulterated and misbranded because it consisted in part of a decomposed vegetable and animal substance, and the sacks did not contain any label giving net weight or food value of product. On January 4, 1918, product was released on $500 bond and that product must be labeled.

**6140. Misbranding of cottonseed meal.**
Cottonseed meal labeled "Owl Brand" was alleged misbranded in that it guaranteed to contain 41 per cent crude protein, but in truth only contained 36.44 per cent. On January 23, 1918, defendant plead guilty and paid a $400 fine.

**6145. Misbranding of cottonseed meal.**
Sunset Brand Prime Cotton Seed Meal and Cake was alleged misbranded in that it guaranteed to contain a certain percentage of different ingredients and was found to contain a great deal less than was guaranteed. On October 17, 1917, defendant pleaded guilty and paid a fine of $50.

**6154. Misbranding of cottonseed meal.**
Misbranding of the above article was alleged for reasons that it bore a label guaranteeing a certain percentage of ingredients, and when tested was found to have had less than guaranteed. On Nov. 5, 1917, the defendant company entered a plea of guilty and paid a $50 fine.

**6161. Misbranding of cottonseed meal.**
Substantially the same as 6154. On May 4, 1918, defendant pleaded guilty and paid a fine of $25.

**6163. Adulteration and misbranding of dairy feed.**
Adulteration and misbranding of this article was alleged for reasons that a mixture which contained less than 16 per cent of crude protein, less than 3½ per cent of crude fat, and which contained no cottonseed meal, had been substituted in part for a product composed in part of protein, 16 to 18 per cent; crude fat, 3½ to 5½ per cent, and cottonseed meal, which the article purported to be. On Feb. 26, 1918, defendant company pleaded guilty and paid a $150 fine.

**6168. Adulteration and misbranding of cottonseed meal.**
Adulteration of this article was alleged for reasons that a low-grade cottonseed meal had been substituted for high-grade cottonseed meal, 41 per cent protein, which the article purported to be. Misbranding was charged, as the label bore a guarantee of the product containing a certain percentage of ingredients, and in truth contained less than stated. On April 11, 1918, defendant pleaded guilty and paid a $25 fine.

**6169. Misbranding of cottonseed meal.**
Substantially the same as 6154. On Feb. 9, 1918, defendant company pleaded guilty and paid a fine of $10 and costs.

**6177. Misbranding of cottonseed meal.**
Substantially the same as 6154. Defendant pleaded guilty on March 27, 1918, and paid a fine of $350 and costs.

**6181. Misbranding of cottonseed meal.**
Substantially the same as 6154. On April 30, 1918, defendant company pleaded guilty and paid a $100 fine.

**6187. Misbranding of leader horse and mule feed.**
Substantially the same as 6163.

**6199. Adulteration of sulphured oats.**
The above product was alleged adulterated, as it was found that the oats contained 2 per cent water, which reduced the quality. On Feb. 25, 1918, product was released on $500 bond, in conformity with section 10 of the act.

### *Fish*

**6116. Adulteration of scallops.**
The above article was found adulterated for the reason that it contained filthy, decomposed and putrid animal substances so as to render it unfit for food. On April 22, 1918, decree of condemnation, forfeiture and destruction of article was entered.

**6138. Adulteration of oysters.**
Substantially the same as 6137.

**6139. Adulteration of oysters.**
Substantially the same as 6137.

**6147. Adulteration of oysters.**
Substantially the same as 6137. On November 5, 1917, pleaded guilty and paid a $25 fine.

**6156. Adulteration of sardines.**
The above article was charged with adulteration because it consisted of a filthy, decomposed animal substance. On Aug. 29, 1917,

Libby's

**Hawaiian Pineapple**

*The fruit that is always "in season"*

Libby's Hawaiian Pineapple finds a friend in every woman who takes pride in her table. The luscious, golden fruit is adaptable for so many uses, from salads to desserts, that it is practically indispensable.

National advertising has consistently featured the many delightful ways of preparing Libby's Hawaiian Pineapple. And women, in their persistent quest of the new, are particularly responsive to this kind of advertising.

You'll find Libby's Hawaiian Pineapple, when attractively displayed, a quick "turnover" product.

**Libby, McNeill & Libby, Chicago**

## *Fish—Continued*

good portion of product was released on $500 bond, and unfit portion ordered destroyed.

**6164. Misbranding of clams.**
The above article was alleged misbranded as the quantity of contents in each package was not marked on outside of package. Another shipment of clams made Sept. 18, 1916, was alleged misbranded for reasons that label on package read net weight 5 ounces, and in truth contained a less amount. On Feb. 5, 1918, defendant company pleaded guilty and paid a $75 fine.

**6171. Adulteration of minced clams.**
Adulteration of the above article was alleged because it consisted of a decomposed substance. On June 9, 1917, claimants consented to a decree of judgment of condemnation and forfeiture, and product was released on $313.60 bond in conformity with section 10 of the act.

**6190. Adulteration of clams.**
Clams were alleged adulterated because water had been mixed and packed therewith, which reduced the quality, and had been substituted for clams, which the article purported to be. On March 29, 1918, the defendant pleaded guilty and paid a fine of $25.

**6194. Adulteration of sardines.**
An article labeled "Leader Brand Sardines" was found to be adulterated for reasons that it consisted of 44.5 per cent decomposed fish. On Feb. 5, 1918, good portion of product was released on $500 bond and unfit portion ordered destroyed.

**6195. Adulteration of sardines.**
Substantially the same as 6156.

## *Fruit*

**6131. Adulteration and misbranding of evaporated apples.**
The above article was found to be mixed and packed with water and labeled "evaporated apples," but consisted of a partially dried apple product containing an excessive amount of water. On October 5, 1917, defendant pleaded guilty and paid $20 fine and costs.

**6200. Adulteration of canned peaches.**
Adulteration of the above product was alleged because it consisted of a filthy and decomposed substance. On April 16, 1918, claimant consented to a decree of condemnation and forfeiture, and that product was released on payment of a bond, in conformity with section 10 of the act.

## *Gelatin*

**6191. Adulteration of gelatin.**
Gelatin was found to be adulterated because it contained copper and zinc, added deleterious ingredients, which might render the article injurious to health. On Dec. 15, 1917, decree of condemnation and forfeiture was entered and product was released on payment of $500 bond, in conformity with section 10 of the act.

## *Jelly*

**6158. Misbranding of jam compounds.**
Misbranding of jam was alleged for the reason that it bore a label stating each jar contained 10 ounces or 8 ounces, as the case might have been, of jam, and in reality contained less than 10 ounces or 8 ounces, as the case might be. On March 29, 1918, defendant pleaded guilty and paid a $100 fine and costs.

## *Meat*

**6188. Adulteration and misbranding of protein meat scraps.**
The article labeled "Darlins' High Protein Meat Scraps for Poultry" was alleged adulterated and misbranded, as ground glass was found mixed and packed therewith, and substituted for meat scraps, which is injurious to health, and that label on the bags read 55 per cent protein, but contained a less percentage of protein. On April 3, 1918, no claimant having appeared for property, judgment of condemnation was entered, and court ordered product sold properly relabeled, with injunction against use of product as food for human or animal consumption.

## *Milk*

**6114. Adulteration of milk.**
Milk was found adulterated because it had been mixed and packed with water and substituted in part for milk, which the article purported to be. On March 6, 1918, defendant pleaded guilty and was fined $50.

**6115. Adulteration of milk.**
Substantially the same as 6114. On January 8, 1918, defendant pleaded guilty and was fined $100.

**6120. Adulteration of milk.**
Adulteration of the above article was alleged for reasons that a valuable constituent thereof, to-wit, butter fat, had been in part abstracted. On November 13, 1917, the case was tried in court and the jury found the manufacturers not guilty.

## *Soft Drinks*

**6117. Supplement to Notices 1455, 4032, 4801. Adulteration and misbranding of Coca Cola.**
On November 12, 1917, default decree of condemnation and forfeiture was entered. Product was released on bond.

## *Spaghetti*

**6101 Misbranding of spaghetti.**
Misbranding was alleged, as labels read weight 13 pounds net, but in reality each can contained 14.23 per cent less than 13 pounds.

## *Syrups*

**6146. Misbranding of maple and refined sugar sirup.**
The above was alleged misbranded in that it was labeled contents ½ gallon, and in truth did not, but contained less. On March 19, 1918, defendants pleaded guilty and paid a $25 fine.

**6182. Adulteration and misbranding of syrup.**
Adulteration of Appetone brand blended syrup was alleged adulterated for the reason that it was a mixture composed of not more than 10 per cent maple sugar syrup, an article inferior to a product composed of 25 per cent of maple sugar syrup, and was colored with caramel so as to simulate the appearance of a product composed of 25 per cent maple sugar syrup, and in a manner whereby its inferiority to said product composed of 25 per cent of maple sugar syrup was concealed. On April 9, 1918, defendant pleaded guilty and paid a $50 fine.

## *Tea*

**6162. Misbranding and adulteration of Ceylon tea.**
Product labeled "White Lily Ceylon Tea" was found to be adulterated and misbranded for reasons that a substance, to-wit, a mixture composed of tea other than Ceylon tea, had been mixed and packed, and substituted for Ceylon tea, which the article purported to be, and label was misleading to purchaser, as it read "Ceylon Tea," and in truth did not. On Feb. 20, 1918, the defendant company pleaded guilty and paid a $25 fine.

## *Tomatoes and Tomato Pulp*

**6124. Adulteration and misbranding of tomato pulp.**
The above article was charged with adulteration and misbranding for the reasons that it consisted of a filthy, putrid and decomposed vegetable substance, and that the contents was not marked on label. On January 9, 1918, defendant pleaded guilty and was fined $200.

**6144. Adulteration of catsup.**
Compound catsup was alleged adulterated for reasons that it consisted in part of a filthy, putrid and decomposed vegetable product. On January 21, 1918, defendant pleaded guilty and paid $75 fine and costs.

**6165. Adulteration of tomato paste.**
The above product was found to be adulterated, as it was made from decomposed tomatoes. On Feb. 4, 1918, defendant pleaded guilty and paid a fine of $25.

**6172. Adulteration of tomato pulp.**
Substantially the same as 6166. On April 15, 1918, no claimant having appeared for the property, judgment of condemnation and forfeiture was entered and product ordered destroyed.

**6196. Adulteration of tomato paste.**
Substantially the same as 6165. On April 22, 1918, court ordered product destroyed.

**6197. Adulteration of Life Buoy brand tomato paste.**
Substantially the same as 6196.

**6198. Adulteration of Eagle brand tomato paste.**
Substantially the same as 6196.

## *Vinegar*

**6126. Adulteration and misbranding vinegar.**
Vinegar was found to be distilled vinegar or diluted acetic acid, and a foreign substance mixed, reducing its quality. It was alleged misbranded, as the label read, "Blue Ribbon Brand Cider Vinegar," and was not a cider vinegar, but a mixture of acetic acid or distilled product. On January 19, 1918, product was released upon payment of costs and product ordered relabeled.

**6127. Adulteration and misbranding vinegar.**
Substantially the same as 6126.

**6128. Adulteration and misbranding vinegar.**
Substantially the same as 6126.

**6129. Adulteration and misbranding vinegar.**
Substantially the same as 6126.

**6130. Adulteration and misbranding vinegar.**
Substantially the same as 6126.

**6418. Adulteration and misbranding of Orchard Made Brand vinegar.**
Substantially the same as 6126.

**6167. Adulteration and misbranding of pure apple cider vinegar.**
Adulteration was alleged because dilute acetic acid or distilled vinegar and mineral matter was mixed and substituted for pure apple cider vinegar. Misbranding was charged for reasons that it bore a label, "Pure Apple Cider Vinegar," which was misleading, in that it represented the article was pure apple cider vinegar. On March 29, 1918, defendants pleaded guilty and paid a $100 fine.

**6186. Adulteration and misbranding of apple cider vinegar.**
Substantially the same as 6167. On March 29, 1918, defendants pleaded guilty and were fined $100.

## *Water*

**6157. Adulteration of water.**
A product known as the Crazy well Water was found to be adulterated and unfit for human consumption because it consisted in part of a filthy and decomposed animal and vegetable substance. On Feb. 19, 1917, product was ordered destroyed, and empty containers returned to claimant upon payment of costs of the

# Dehydrated Vegetables

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
INCORPORATED
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U. S. A.

# Sweet Potato Syrup—A New Product

EXPERIMENTS conducted in the Bureau of Chemistry have produced a palatable and wholesome syrup from sweet potatoes, the United States Department of Agriculture announces. The method, developed by a specialist in the bureau, is recommended particularly for home use where there is an oversupply of sweet potatoes. The method is not recommended at present for commercial use, because it is believed that sweet-potato syrup can not compete on a commercial basis with grain syrups.

The sweet-potato syrup, which shows a yield of from 30 to 35 per cent of the weight of the sweet potatoes, has consistence, taste and color similar to cane and sorghum syrups. It is known to contain much sugar. Experiments to determine its exact food value are being conducted by the Home Economics Office of the department.

### The Method in Brief

The sweet potatoes should be washed, any decayed portions or other blemishes removed, and then weighed. They are then placed in a kettle with plenty of water and boiled until thoroughly soft. From 1½ to 2 hours' boiling is required. The potatoes are then mashed in the kettle in the water in which boiled, with sufficient water, adding more if necessary to form a thick, smooth, mushy liquid. The temperature of the mixture is then brought to 140° F., and a quantity of ground malt added equal to 3½ per cent of the weight of the original sweet potatoes. The mixture is thoroughly stirred and allowed to stand for a few minutes at a temperature of 140° F., and the temperature is then brought with constant stirring to a temperature of 150° F., the source of heat removed, and the mass allowed to stand with occasional stirring for an hour. The mixture, known technically as the "mash," is now pressed in cloths to separate the liquid and solid portions. The material is placed in cloth bags, which are closed, and the bags subjected to gentle pressure while kneeding. The juice flows out readily, leaving the pulp behind. The juice is now boiled down to syrup in an ordinary kettle.

Any of the common varieties of sweet potatoes can be used. Freshly harvested stock will yield a syrup somewhat less sweet than sweet potatoes which have been harvested for some time.

The sweet potatoes should be cooked with plenty of water. It is necessary to obtain a fluid, mushy mass which can be mixed readily with malt.

Great care must be taken that the temperature of the mass be uniform throughout during the action of the malt.

### Preparation of Malt

Ordinary brewer's or distiller's malt of good quality gives excellent results, or the malt can be made by sprouting barley under proper conditions. In preparing malt from barley the following method will give satisfactory results: The grain should be soaked in water for 12 hours. The water is then drained off and the grain allowed to stand for 12 hours, and the operation of soaking and standing repeated during the next 24 hours. At the conclusion of the steeping, the interior of the grain should be soft and chalklike. The grain is then spread upon a tray in a layer not over 6 or 8 inches deep. The temperature at which the sprouting grain is kept is of great importance in the successful manufacture of malt. It should be kept as near 60° F. as possible. After the grain has grown for six or eight days the sprout forces its way out at the end of the grain opposite to the rootlet, and the malt may be used with excellent results at this time. Sprouting, however, may be allowed to continue slowly for another six or eight days, or even longer, until the sprout has attained a length from three to four times that of the grain. The grain must be kept moist, so that the rootlets do not wither during the sprouting period and should be turned over and thoroughly mixed at least once a day and kept covered with a wet cloth and in the dark. The product is known as "green malt." It should have a fresh odor and be free from any sour smell and should be free from mold. Immediately before use the green malt should be finely ground in an ordinary meat chopper or other suitable machine. When so ground it forms a pasty mass and may be added directly to the boiled mashed sweet potatoes and the mixture thoroughly broken up by stirring until the malt is thoroughly disseminated.

On a small scale this is most readily accomplished as described. On a large scale an ordinary cider press, using racks and cloths, can be successfully employed. The liquor obtained is slightly sweet and rather turbid. Plenty of water should be used in order to produce a mash from which the liquor will freely flow and in which a large proportion of the sugars may be easily removed by a single pressing. The total quantity of water used should be two or three times the weight of the potatoes. The sweet-potato sirup can be boiled down to as thick a consistence as desired. The pulp which remains can be dried and used for feed, or it can be fed while fresh.

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## Dehydration

(Continued from page 14)

Most of these patents show that the inventor had no technical knowledge whatever of the subject he is dealing with, and the major portion of the devices disclosed have either never been put into use, or if put into use, have been found to be totally worthless. There are very many reasons, aside from that mentioned, why the apparatus failed to work. Briefly stated, their failure to understand the principle involved in extracting moisture; failure to comprehend the mechanical and chemical effects of heat; failure to recognize that the specific gravity of moving air currents varies in proportion to their moisture content and heat, and many other things. A device which will act very well on a small scale, i. e., that will produce a fairly uniform product, will not necessarily work on a large scale, and it is this fact which has caused the failure of a majority of concerns which have attempted to dehydrate.

Very many machines will produce a nice dried product on the top surface, but a wet, sticky product on the lower surface, or vice versa; or one set of cells will produce a well dehydrated body, another set will be wet, and still another set burned, which conditions are due to the fact that the air currents traversing different parts of the apparatus are not uniform in temperature and humidity.

No book has ever been written on the art of dehydration of vegetable and animal products. It would take quite a large book to explain all that must be known to arrive at successful results. In this description I have sought only to give the main facts, with the idea that they might be helpful to those who are groping in the dark.

# RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office. Copies thereof may be obtained from R. E. Burnham, patent and trade-mark attorney, Real Estate Trust Building, Washington, D. C., at the rate of 20c each. State number of patent and name of inventor when ordering.

1,285,409. Combined ice-cream freezer and refrigerator. William H. Sargent, St. Louis, Mo., assignor to Wayne Mfg Co., same place.

1,285,552. Process of exhausting air from the presence of food products. Arthur Barry, Liverpool, England.

1,285,555. Flavoring compound. John C. Bradley, Haverhill, Mass.

1,285,560. Gravity fruit-separator. Frank F. Chase, Riverside, Cal.

1,285,577. Cracker-cutting machine. Daniel K. Allison, Cincinnati, Ohio, assignor to The J. H. Day Co., same place.

1,285,615. Macaroni-Drier. John V. Canepa and Primiano Casalena, Chicago, Ill.

1,285,845. Process of preparing meats for low-temperature cooking. Charles B. Trescott, Chicago, Ill.

1,285,979. Machine for molding and cutting butter and the like. Roy E. Gearhart and Eldon E. Lloyd, Maryville, Mo.

1,286,007. Peanut-sheller. David W. Howell, Savannah, Ga.

1,286,028. Cutting apparatus for macaroni. Martin E. Kraybill, Boiling Springs, Pa.

1,286,029. Process for the manufacture of macaroni, etc. Martin E. Kraybill, Boiling Springs, Pa.

1,286,145. Baking-powder. Hervey D. Thatcher, Potsdam, N. Y.

1,286,315. Process of making alcohol-reduced beverages. Herman Heuser, Chicago, Ill.

1,286,404. Method and apparatus for deodorizing cream. John Priskey, Detroit, Mich.

1,286,685. Machine for cutting and pitting drupaceous fruit. Hugh C. McCurrie, San Francisco, Cal.

1,286,766. Flaked cereal food product and method of making the same, Willis H. Post, Battle Creek, Mich., assignor to Postum Cereal Co., same place.

1,286,804. Machine for sealing bread-wrappers or the like. Richard Sejnoha, Wolsey, S. Dak.

1,286,863. Fruit-grader. Henry C. Winans, Prescott, Wash.

1,286,903. Process of reducing fats and mixtures containing the same to powder form. Frederick C. Atkinson, Indianapolis, Ind.

1,286,904. Baking-powder and process of making same. Frederick C. Atkinson, Indianapolis, Ind.

1,286,928. Attachment for dough-mixers. William H. Brooks, San Jose, Cal.

1,286,989. Preserving eggs. Gustav Futterer, Chicago, Ill.

1,287,145. Fruit-drying tray. Arthur Vernon, Fresno, Cal.

1,287,345. Handling apparatus for macaroni. Martin E. Kraybill, Boiling Springs, Pa.

1,287,395. Composition of matter to facilitate the whipping of cream. Alice A. Moore, Vancouver, British Columbia, Canada.

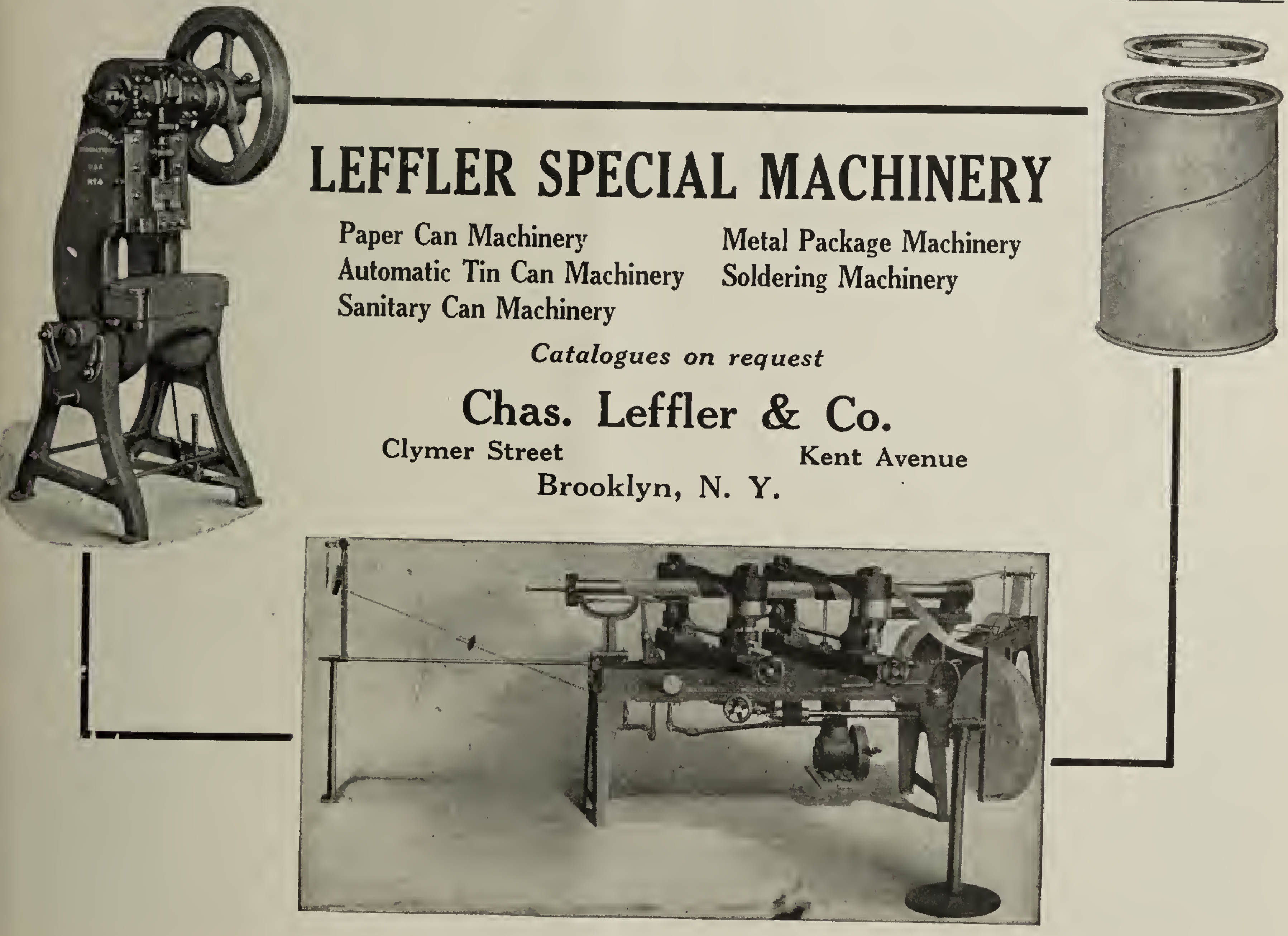
1,287,430. Loading and unloading device for baking-ovens. Charles H. Putnam, Evanston, Ill.

1,286,600. Milk-treated wheat or other cereal flour. Arthur R. Coulson, San Quentin, Cal.

1,287,654. Method of milling flour. Rowan T. F. Dodds, Decatur, Ill.

1,288,428. Leavening agent. Frederick B. La Farge, Washington, D. C. (Dedicated to the public.)

1,288,429. Process of manufacturing glucose. Frederick B. La Farge, Washington, D. C. (Dedicated to the public.)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# Southerners Will Report On "New Food Oils" Investigation

THE margarine manufacturers, dairy industry members and scientific men and women generally will be interested in the report of committee of the Association of Agricultural Workers of the South, which will be given the last week in this month at a meeting to be held in Birmingham, Ala. This committee has been for a year making a scientific investigation of oleomargarine. The members are W. R. Dodson, B. W. Kilgore of Raleigh, N. C.; Tait Butler of Memphis, Tenn.; J. F. Dugar of Auburn, Ala., and H. A. Morgan of Knoxville, Tenn.

Something of the controversy that is being waged on the subject in the South will be apparent to the reader of the letter which Mr. John T. Ashcraft of Florence, Ala., wrote to Mr. Dodson on receiving a letter asking views in regard to the subject under debate. Mr. Ashcraft's letter follows:

Florence, Ala., Jan. 13, 1919.

Dr. W. R. Dodson, University Station, Baton Rouge, La.

Dear Doctor—I have your favor of January 7th, and note your plan to submit a series of questions to the different interests.

I think this is a good plan to begin with, but I earnestly trust that this distinguished committee will not stop with the answers to these questions. What the South needs to know is the facts concerning the foods which may be produced by the combination of her oils with milk. At present we know nothing of the subject. As indicating the possibilities of scientific investigation and experiment I call your attention to a bulletin of the University of California published in the September issue of the AMERICAN FOOD JOURNAL from which it appears that pathogenic germs cannot survive in peanut butter. If this be true it will in the nature of things add to the prosperity of peanut growers because the increased use of the product will result with the increasing knowledge of the fact.

Again in a recent conversation with Dr. C. L. Langworthy, whom I am sure you know well, he told me that experiments conducted by his bureau had demonstrated the fact that the protein of peanut meal or flour is one of the few perfect proteins, and expressed the opinion that the time was not far distant when peanut flour will be one of the most important items in our diet.

Recently Dr. David Wesson sent me a sample of filled-cheese which had been produced in the laboratory. In his letter he said:

"I took about two pounds of this cheese up to the Chemists' Club the other night and it was interesting to notice how quickly it disappeared along with some crackers when served around promiscuously to a number of chemists."

He says that a mild and very palatable cheese can be produced by the combination of peanut and cotton seed oils with skim-milk, and that this is one of the most practicable ways to conserve the food value of skim-milk, as filled-cheese will keep for a long time and is well adapted to distribution over large areas of the country.

If this industry could be established in the butter making section of the country we would not only have a splendid market for our oils but those butter making sections would be able to distribute their skim-milk into the remote sections which cannot be now reached.

Then I have noticed recent articles about the production of a condensed milk which is composed of skim-milk and vegetable oils and called Hebe.

I have no doubt that, if the scientific men composing your committee will themselves institute a series of investigations, or suggest various investigations to be made by the colleges, many valuable combinations will be found whereby the use of our oils will be enlarged and the milk of the country be greatly conserved.

What the South needs is to get this question out of the atmosphere of ignoramous politics and into the atmosphere of scientific knowledge. When this is done the law will respond to a well informed public opinion. All legislation up to the present has been enacted in the dark amid the fears and suspicions which darkness fosters.

As long as we are ignorant the South will not assert its rights because those rights are not clearly defined.

I have not kept up with the Minnesota fight in detail, but from a Minnesota Dairy Journal to which I subscribe I gather that, owing to the fearful revelations made before the committee on Definitions and Standards in their hearings at St. Paul, and the public knowledge generally of the manner in which butter was being produced, the students of the university by a vote requested that they be supplied with oleomargarine instead of butter. This request was granted by the faculty; and another big storm broke over the university. The dairy organizations of the state enlisted the students of the dairy division. A red hot campaign was inaugurated which ended in another vote by the students whereby they requested to be returned to butter for the sake of the dairy interest and the reputation of Minnesota.

Now here in Alabama we produce nearly two and one-half times as much peanut and cottonseed oil as Minnesota produces butter fat. We have just about twice as many farmers engaged in the production of these oils as Minnesota has engaged in the production of butter fat.

We produce more than two hundred times as much oil as we ourselves produce butter fat and we have one hundred and fifty times as many farmers producing these oils for market as produce butter fat for market. Yet we have a well organized faculty at the Alabama Polytechnic Institute studying the production and distribution of butter.

Not long ago I attended a meeting of community builders which was attended by more than one hundred citizens representing ten or twelve counties. In a discussion of markets for farm products the question was asked, what are the principal uses of peanut and cottonseed oils? The man delivering the lecture on markets could not answer and asked if anybody in the audience could answer. Nobody responded. At last a representative on the platform of an agricultural college replied: "They are principally used for making explosives."

I do hope, dear doctor, that the committee will not stop with an expression of a political opinion or expression of expediency. If the scientists will give the country the facts then the country will act wisely.

With very great respect,
Yours truly,
JOHN T. ASHCRAFT.

## New Laws

(Continued from page 24)

use of trading stamps, coupons, etc., except that merchants are permitted to issue discount slips under certain restrictions.

House Bill No. 52—Prohibits false or untrue advertising.

### Vermont

Senate Bill No. 17—Amends the narcotic law by prohibiting sale of all preparations containing any quantity whatever of opium, morphine, heroin, codeine, cocain, cannabis indica, cannabis satira.

House Bill No. 107—Is a bill to repeal the existing law providing for the licensing of dealers in oleomargarine.

### Washington

Senate Bill No. 9—Is a long concentrated Feed Bill.

Senate Bill No. 10—Is a bill to standardize milk and milk products, including "Hebe," and fixing a tax of 50 cents a case on all "Hebe" manufactured in the state.

House Bill No. 77—Defines the "manufacture" of dairy products, fixes the manner of making test for butter fats and regulates the purchase of milk and cream to be used in the manufacture of condensed or evaporated cream or milk.

House Bill No. 117—Is a cold storage bill.

### West Virginia

House Bill No. 76—Is an amendment to the Weights and Measures law.

Senate Bill No. 85—Is to regulate the sale of commercial feeding stuffs.

House Bill No. 149—Is a long Weights and Measures bill.

Senate Bill No. 181—Is a long Weights and Measures bill.

### Wisconsin

House Bill No. 6-A—Prohibits the use of trading stamps, coupons, etc., except that any manufacturer, packer or dealer may issue any ticket with the sale of the goods, which ticket shall bear a statement of its cash, redeemable value and shall be redeemable only in cash by the one issuing it.

Assembly Bill No. 22-A—Seeks to repeal the sections of the statutes relating to whey, cream and butter.

### Old Methods Gone—

DR. B. J. HOWARD, the canning expert of the Bureau of Chemistry, drew some pertinent comparisons at the recent Chicago convention. This is what he said of tomato pulp:

"What kind of stock was being used ten years ago, what kind of washers were employed, what kind of sorting equipments, if any at all? Who has ever heard of a chemical or microscopical testing of tomato pulp or catsup?

You remember that plug, valve or stop-cock in the bottom of your pulp tank through which you drew off the "water"; yes, and the cooking arrangement? And recall with what care when a barrel was to be opened for inspection we laid it so that if the bung blew out with explosive violence it would do us no harm. Somewhat different from conditions observed this year in which in visiting ninety-eight factories not one of them used this method of storing pulp."

## New Egg Law

(Continued from page 33)

may be suspended for not more than thirty days; for the second offense not more than sixty days, and for the third or subsequent offense his license may be revoked.

SEC. 7 That the words used in this Act shall be construed to import the plural or singular, as the case demands.

SEC. 8 That all laws or sections of laws, and amendments thereto or thereof, now in force in this state, which may be in conflict with the provisions of this Act are hereby repealed.

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The flavor comes in liquid form—in a vial. So it gives to Jiffy-Jell a wealth of fresh-fruit taste.

It comes ready-sweetened, and the cost is slight. A single package serves six people.

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*Two Packages for 25 Cents at Your Grocer's*

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These two packages contain the same amount, size and brand of cookies.
Which looks the more tempting?
It is not all in the appearance, but it helps greatly.

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9 S. Clinton St., Chicago, Ill.
Consultant in the Design and Operation of Plants for the Manufacture, Refining and Use of Vegetable Oils.

The Last Three

in the box and they'll soon be gone! No wonder—for the flavor, crispness and fine quality put into them by the Taggart people have been *kept in* by the waxed paper sealer. Most prepared products (particularly foods) lose considerable of their goodness before the consumer gets them. That's why "quick turnover" is a good thing for all concerned. Waxed paper sealers or wrappers are simply insurance against loss of goodness before the user gets the package.

WILL you permit the World's Cleanest Paper Mill to submit samples of KVP waxed and also vegetable parchment papers?

KALAMAZOO VEGETABLE PARCHMENT COMPANY
The World's Cleanest Paper Mill.
Manufacturers of Waxed, Vegetable Parchment and Bond Papers.
KALAMAZOO, MICHIGAN

Make Sure the Name
"WARD"
is back of every kind of
Bread and Cakes
you buy and you are certain of getting the highest grade bakery products.

WARD BAKING COMPANY
BAKERIES IN
New York Newark Providence Cleveland
Brooklyn Boston Pittsburgh Chicago Baltimore

## Barnard's Editorial

(Continued from page 27)

packages. Cleanliness is a saving grace in the food business but eminently so in coffee. Bulk coffee has made a great march forward in the last five years. The country grocer and the corner merchant does not keep as he used to, tobacco, rum, molasses, coffee and kerosene all in common array. He takes care of his goods, he keeps his coffee in dust-proof, airtight canisters, for he knows that dust doesn't help flavor and repels trade.

We have got the coffee habit. To most of us it is not harmful and it does cheer.

## We Should Eat More Raisins

RAISINS are dried grapes and they contain all of the elements of the fresh grape except the water. They have a high food value for they are rich in sugar and fruit acids and they also contain protein and fat. A pound of raisins contains as much food as six pounds of apples or two quarts of milk. Raisins are in no sense delicacies or dainties. There is more reason for putting them into bread puddings and mince pie than the fact that they improve appearance and impart flavor. They belong in such foods because they are nutritious and they may well be more generally used.

A few years ago the raisin crop was large and growers could not get enough for their crop to pay for picking the grapes. They took their troubles to an expert and he suggested that raisins made good bread better. In two years this idea has been popularized in the form of raisin bread until the use of raisins is greatly increased, the consumer is better served and the vineyard owner is making money.

Raisins properly baked in breads and puddings, or indeed eaten out of hand or after being "plumped" by putting them in a pan of boiling water until they have swollen to their original shape, are an almost ideal food for children. Not only do they satisfy with their burden of fruit sugar but they have an important medicinal value because of their laxative effect.

Buy more raisins, by the pound, by the bunch, by the can or box. Use them in many forms of cooking where sweetness and fruity flavor is helpful, and place them where the children can get at them whenever they are hungry.

## No Substitute For the Egg

NO baker can afford to use eggs when they are selling for fifty cents a dozen on the farm. But eggs seem to be essential to many recipes. In fact, one sometimes wonders what the cookbook writers would do if there were no such thing as eggs, around which to write their good advice to young housewives.

The present egg scarcity has stimulated the sale of egg substitutes in the form of powders colored yellow to look like egg yolk and filled with dextrine to simulate egg white. There is no real objection to the use of these so-called egg powders save that they are no more like eggs than they are like ham, and the baker who uses them in his cakes and jelly roll without declaring to the consumer the fact that the rich yellow hue is due to the product of the anilin dye maker instead of the barnyard hen is apt to get into trouble with the food inspectors. The sale of cakes or any other bakery products colored in imitation of the genuine egg color is a clear violation of the pure food laws.

The desire to economize when eggs are high is laudable but the housewife will do better to go without eggs altogether or to make one egg do the work of three, than to pay extravagant prices for mixtures of starch and dextrine, brilliantly colored with a little yellow dye.

There is no such thing as an egg substitute. Artificial eggs will still be unknown when artificial diamonds are common.

## The Label Should Tell the Truth

A CANNER who had no faith in his labels sent out a few years ago an assortment of goods labelled somewhat as follows: "Canned peas, colored with Paris green." "Sweet corn containing strychnine." "Pork and Beans with ptomaine poison sauce." It is reported that all of these goods were sold and so far as the manufacturer ever learned, not a single objection was raised against them because of the statement on the label as to the contents of the can.

I can conceive of goods bearing such a label selling ten years ago, but I believe it utterly impossible to do it now. The slogan, "Let the label tell the truth," has been repeated, reiterated, and dinned into the ears of the housewife who purchases ninety per cent of the food supply, until she is really taking notice of the labels on the packages. She is posted as to what these labels mean. She has learned the difference between vanilla extract and the atrocious compounds which used to be sold under that name, but which are now labelled, "Compound of Vanillin and Coumarin, flavored with Coumatin." She is not deceived by the formulas printed on the imitation jelly package and she knows quite as well as the milkman the difference between the grades of milk.

Some years ago fraudulent food advertising was only regulated by the bounds of imagination of the advertisement writer. I remember well a maple syrup which bore the label something like this—"Absolutely pure maple syrup. This product is made from the first run of sap from the finest maple groves of Vermont. It is collected with the greatest care and evaporated to a syrup by a process that preserves the delicate aroma and fragrance of the finest product of the maple trees. It is absolutely pure and is bottled expressly for those who distribute only the finest goods." The man who wrote the advertisement was an expert, but the man who made the syrup was even better, for as a matter of fact, the only possible evidence of maple syrup that we could find about the package was a picture of the maple grove that appeared on the label.

Of course such labelling is impossible today. The laws will not allow it and business cannot thrive upon it.

## Storage Holdings

(Continued from page 25)

American cheese were in storage on February 1, 1919, a decrease from last year of 75.4 per cent. Holdings of Swiss cheese increased 55.2 per cent compared to last year, and on February 1 amounted to 2,316,210 pounds. Limburger, cream, and Neufchatel cheese decreased about 25 per cent, while increases of 37.2 per cent for brick and munster, 100 per cent for cottage, pot and bakers, and 597 per cent for "all other varieties" of cheese were reported.

Case eggs in storage showed a decrease of 20.7 per cent and on February 1 this year were 127,363 cases. Frozen eggs decreased 37 per cent, the total being given as 7,681,880 pounds on February 1 this year.

There were 1,626,713 barrels of apples in cold storage on February 1 this year and 4,143,542 boxes, a decrease of 24.7 per cent for apples compared to a year ago.

## President Removes More Regulations

The President has signed a Proclamation, effective February 1, 1919, removing the requirement of licenses under the Food Control Act in a large number of cases and repealing regulations governing those whose licenses have been cancelled. The following only now remain under license:

Importers and distributors of wheat, corn, oats, rye, barley, also elevators or warehouses storing wheat, corn, oats, rye, barley, rice.

Importers, manufacturers and distributors of fresh, canned or cured beef, pork or mutton, cottonseed, cottonseed products, lard, butter, eggs, sugar.

Importers and manufacturers of rice flour, wheat flour, and wheat mill feeds, also cold storage warehousemen.

Licenses and all regulations are canceled in case of the following:

All persons, firms, corporations or associations heretofore required to be licensed whose licenses have not already been cancelled, engaged in the business of importing, manufacturing, (including milling, mixing or packing), or distributing oatmeal, rolled oats, oat flour, corn grits, corn meal, hominy, corn flour, starch from corn, corn syrup, glucose or raw corn flakes, rye flour, barley flour, milk, cheese, near-beer or other similar cereal beverages, malt, copra, palm kernels, peanuts, oleomargarine or butter substitutes, lard substitutes except cottonseed products; all animal or vegetable fats or oils except butter, lard and cottonseed oil; also all salt-water fishermen. The provisions of the Food Control Act are still in full force and effect.

In addition to the regulations cancelled as a result of this Proclamation all remaining special regulations governing manufacturers and distributors of butter have been repealed. Furthermore, the maximum margins heretofore indicated for wholesalers and retailers have been withdrawn except in the case of cottonseed products and eggs.

---

Six thousand cases of pineapples were packed in Hawaii in 1902. In 1909 the pack reached 498,000 cases. This year, ten years later, the pack will be almost four million cases of twenty-four tins each, a total of ninety-six million cans of a single fruit. Has any other food industry made such amazing progress?

**Nucoa**

**Made of Nuts and Milk**
**Free From Animal Fats**

This product is taxed and regulated the same as animal oleomargarine. We oppose the former and positively favor the latter. We want this product sold on its merits for just exactly what it is. We refuse to sell moonshiners. This product is sold only in one, two and five pound cartons. Our business has grown rapidly on new, progressive lines.

**The Nucoa Butter Company**
*Churners*
Sales Department — 2283 Woolworth Building, - New York

**All Nut Margarines Are Not Alike**

A perfect Nut Margarine should have the following requisites:

Keep sweet as long as butter.
Soften at the same temperature.
Have a butter flavor.
Have a texture so as to spread like butter.

FARRELL'S A-1 Brand has stood the test through the hottest months of Summer. We stand ready at all times to prove this statement.

Made from the delicious juice of cocoanuts.
Churned in pasteurized milk.
Contains no animal fats.

DOWNEY-FARRELL COMPANY
CHICAGO, ILL.

**E. PRITCHARD**
*Packer and Manufacturer of the Finest*
**"EDDYS"**
**BRAND**
Canned Foods, Jellies, Preserves,
Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup

Bridgeton, N. J. and 331 Spring Street, New York

## Eat Nuts All the Year 'Round

The latest scheme is to make people eat nuts all the year round instead of during the holiday season. California is raising so many nuts that something like this must be done or the markets will be flooded during the brief consumption period.

The California Walnut Growers' Association has launched a movement to push nuts into an all-year consumption. The scope of the campaign is seen from the following copy of a letter sent by the association to its members:

"We must all commence to realize now that we are rapidly approaching the time when, regardless of price, we cannot expect the entire California walnut crop to be consumed during the holiday period. Only a certain tonnage of walnuts can possibly be eaten at Thanksgiving and Christmas. The slogan that we are trying to drive in is that walnuts are just as good to eat in April as in November, and that there is no more reason for discontinuing to use walnuts after Christmas than there is to stop eating ham or eggs after January 1st.'

"We have to get walnuts on the list of all-year-round food, and the sooner we do it the better for the industry. Of course, practically all of our advertising this year is directed towards this purpose, and we believe we will in this one year treble the normal after holiday consumption.

"The beautiful part of this advertising campaign is that it will not be felt in the returns made to growers. While it costs lots of money to advertise in the national publications, at the same time it is the cheapest that a distributor of products nationally can undertake.

"The association is now considering a definite national advertising policy to cover a series of three or five years, the plan being to nationally advertise walnuts whether the crop is large or small, the price high or low, the market good or bad, the idea being that through this advertising we will assure ourselves a strong and constant demand for our product from year to year, and through it develop at least a heavy consuming period continuing for six or seven months instead of about a two or three months' heavy consuming period as in the past.

"The normal production of California walnuts has increased at the rate of about 15 per cent annually. It is vital that we keep consumption ahead of this constantly increasing production. We must also realize that the war is over. Next year competition from the European growers will probably be keener than ever. It is absolutely necessary that we predominate the field; also that we predominate on quality. Our advertising will help both ways."—Merchant and Grocery World.

## Seeks Outlet for Brewers' Rice

Rice mills and other large holders of brewers' rice have appealed to the Bureau of Markets of the United States Department of Agriculture to find an outlet or new uses, through investigations, for their stocks which are accumulating because of the approach of national prohibition. Although such rice might be made into rice flour, dealers and mills report a decreased demand for rice flour since the restrictions on the use of wheat flour were removed by the Food Administration, and doubt whether the making of additional rice flour would be profitable. In addition to the stocks of brewers' rice there are also large holdings of low-grade rice and screenings which are at present unmarketable. The department is giving attention to the problem.

## Officials Nab Many Whiskey Runners

SINCE May 1, 1918, when the Michigan Food and Drug Department took over the duties of the enforcement of the new Prohibition Law, many new methods used by people in bringing whiskey into the State have been uncovered.

Whiskey has been shipped into the State in carload lots, billed as apples, pickles, spinach and red peppers. In each case the barrels placed in front of the doors of the cars were true to name. Also carbon dioxide drums, barrels inside of barrels, with the space between the barrels filled with tar, glucose and vinegar, have been found. Milk cans with the body containing whiskey and a compartment across the shoulder with milk in the neck has also been found.

Extra tires containing whiskey, compartments in the gasoline tanks and special tanks built under the running board are methods that people driving automobiles have tried to use.

Whiskey in suitcases, trunks, hot-water bottles, and special canvas harnesses containing numerous pockets, were among the methods found to be used by people on the interurban cars and trains. In one instance that which appeared to be a baby that a woman was so carefully taking care of proved to be a number of hot water bottles, with baby bonnet, blankets, pillow, etc., shaped to deceive the average fellow passenger.

Approximately 20,000 gallons of whiskey has been taken away from the whiskey runners. Whiskey, in some parts of the state, has been known to sell for as high as $20 a quart, which makes it a great temptation for men to take chances.

The chemists of the Food and Drug Department, after some examination, decided that the alcohol could be profitably recovered. On an experimental tryout forty-two barrels were shipped to the Grand Rapids Products Company. This company uses an alcohol recovering method in the manufacture of near beers. The result of this experimental tryout was that out of the forty-two barrels of whiskey, seven hundred twenty-five gallons of one hundred eighty-eight proof alcohol was obtained, which would have a market value of several thousand dollars.

This alcohol will be distributed at cost of recovery to the various state institutions, hospitals, etc. It is calculated that the cost of recovery will amount to less than one dollar a gallon.

## Vegetable Shippers

(Continued from page 19)

factors tending to increase cost and affords protection and assistance to all.

"Whether or not there will be supervision, it seems to me, depends very largely upon the members of the American Fruit and Vegetable Shippers Association, and the other bodies like the National League of Commission Merchants, the Western Fruit Jobbers Association, the International Apple Shippers Association, and similar bodies. If they believe that constructive supervision will free their trade of groundless and harmful suspicion, undoubtedly a supervision that will be helpful to them can be arranged. It must not go too far at the beginning, but must have in mind moderation and helpfulness with later extension which experience and conference may develop. Whatever is done can be successful only if there is cooperation between any supervisory body that may be created and the responsible representatives of the shipping, receiving and selling organizations."

The election of officers and directors resulted in all of the former encumbents being reelected. They are E. P. Miller, president; William Newsome, first vice-president; Charles E. Virden, second vice-president, and R. L. Evans, secretary. In addition to these officers the following are the directors: A. U. Chaney, J. S. Crutchfield, N. B. Wescott, J. C. Chase, B. A. Perham, Roy Campbell, J. L. Nagle, Thomas O'Neill, J. B. Cancelmo, John Denney, O. A. Boyle and J. M. Perry.

## Butter Standard Not Before Secretary Houston

THE matter of a definition or standard for butter is not before the Secretary of Agriculture for consideration at the present time, say officials in the Bureau of Chemistry in charge of the enforcement of the Food and Drugs Act, in answer to numerous inquiries from butter manufacturers.

The joint committee on definitions and standards, which is composed of representatives of the Association of American Dairy, Food and Drug Officials, the Association of Official Agricultural Chemists and the United States Department of Agriculture, has had the matter under consideration for some time, and public hearings on the subject were held in St. Paul on June 19, 1918, and in Washington on June 24, 1918. The committee still has the matter under consideration. No conclusion has been reached, and it is unlikely that a final decision will be reached at any time in the near future.

According to the usual practice, the joint committee makes its recommendations first to the Association of American Dairy, Food and Drug Officials and the Association of Official Agricultural Chemists. If these associations adopt the recommendation of the committee, the matter is then referred to the Department of Agriculture for consideration. If the department approves the recommendation, the definition or standard is then promulgated for the guidance of the officials of the department charged with the duty of enforcing the Food and Drugs Act, and also of food and drug officials of the various states.

## Coffee Instead of Booze

Porto Rico is consuming 50 per cent more coffee today than she did before the island "went dry," according to a San Juan coffee dealer.

This fact, together with an island coffee crop of only half of what it was last year and a heavy demand from Spain and Cuba, has sent up prices throughout the island.

The coffee market began jumping a week or two ago, and it has been going up ever since. Retailers found the price almost doubled overnight, and the restaurants last week raised their prices to 10 cents a cup.

San Juan dealers say coffee is likely to go higher than the present price of 44 cents retail if the outside demand continues as strong as now.

**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley,** Chicago
INCORPORATED

**TIN and FIBRE CONTAINERS**
*for*
**Foods—Drugs—Oils**
**Infinite Variety**
**Large Capacities**
**Prompt Deliveries**

**American Can Company**
**Chicago** **New York** **San Francisco**
***With Offices In All Large Cities***

Acid Calcium Phosphate
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***Correspondence Solicited***

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**New York** **Chicago** **St. Louis**
**Largest Manufacturers**

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VANILLA

Is made from the

Finest Mexican
Vanilla Beans

*The same high quality is found in PRICE'S*

Lemon, Orange, Raspberry and Strawberry
Pure Fruit Extracts

Price Flavoring Extract Co.
Chicago, Ill.

CANNED
SALMON

ALL GRADES
ALL SIZES

*Largest Distributors in the World*

KELLEY-CLARKE CO.
New York City Seattle, Wash.

SOMETHING NEW

*Samples Gratis*

GRANULATED BORIC ACID

Will dissolve more readily than any form hitherto introduced - - When ordering, specify - -

20 Mule Team Granulated Boric Acid
U. S. P.

Pacific Coast Borax Company
New York Chicago Oakland

## Stubborn Men Hurt Their Entire Industry

Honest men do not attract attention, they are not interesting, but let a man do a dishonest thing and he immediately focuses public notice. The same thing is true of foods. Good foods are not talked about, but the moment any bad food is found it goes into the newspaper columns under screaming headlines. Honest manufacturers go about their work without receiving any special attention.

No one seems to know what they are doing. No one cares very much. But when a dishonest manufacturer is caught with his guard down and brought before the courts, the whole industry of which he has an insignificant part gets publicity which never helps and which often seriously injures. The ninety-nine per cent of food manufacturers who are honestly, skillfully and conscientiously doing their best to make better food are far less interesting to the consumer than the single dirty little fellow whom the food inspector pounces upon in his cellar or unsanitary shop. But when the one per cent fellow is driven out into the lime light and his methods exposed to the public gaze, the ninety-nine per cent share the execration of the indignant public.

Whenever the dirty dairyman is prosecuted fewer milk bottles are left along the routes of all dairymen; whenever cellar bakeries are condemned bakers' bread goes under the ban. Whenever a story of bad meat is spread broadcast the vegetarian habit grows apace. Any man who makes or handles food under conditions which are bad is a detriment to the entire industry. He ought to be put out of business, if not by the health officer by the concerted action of the indignant men whom his bad business practices have penalized.

As a matter of fact that is the way it is worked in many places and that is why organized industries are helpful not only to the members of the association but to the community. An organization of bakers cannot afford to stand for unsanitary bakeries, and if they are properly directed they will persuade the dirty baker to leave his bakeshop and get into some other occupation which does not have to do with the food supply. A well organized bottlers' association means better pop, cleaner bottles, and fewer reckless and probably unsuccessful bottlers. Grocers' associations help not only by teaching better business methods to the bookkeeper, they are wonderfully effective in driving out the unsanitary shop.

Every trade journal that is doing what it ought to do for the industry it represents is preaching sanitation, urging a strict enforcement of food laws and educating its readers to follow the new axiom—"Cleanliness is essential to Godliness," and to appreciate the fact that it is also essential to good business.

In 1917 New York by a margin of about 600,000 bushels captured the honors as the leading buckwheat producing state, but in addition to increasing nearly all crops during the past year the Pennsylvania farmers made a special drive in buckwheat. The total production of the United States is estimated at about 17,000,000 bushels.

## The Cost of Living the World Over

Australia occupies the most favorable position of all lands in regard to the increased cost of living, according to a survey made by Stockholm "Commercial Gazette." The Australian increase was reported as 30 per cent since the beginning of the war. The United States was recorded as in second position, with an increase of 60 to 70 per cent.

Holland, with an increase of 70 per cent, showed the smallest increase among European nations, and Denmark is next, with an increase of about 80 per cent.

Sweden, England, France, Spain and Portugal are grouped with increases running from 100 to 122 per cent, England and France occupying the most favorable place with increases of about 104 per cent, while Sweden had 182 per cent.

Germany, Belgium, Norway and Hungary had increases from 150 to 200 per cent, while the cost of living in Austria, Finland and Russia had increased more than 200 per cent.

In every case the figures are based on the budget of a normal family, with a year's expenditures of 2,000 crowns in 1914.—*From Greater New York.*

---

All remaining special regulations governing dealers in eggs and cold storage warehousemen have been withdrawn, effective February 14, 1919.

## Yanks Eat Tons of Cough Drops

Cough drops to the extent of 31¼ tons were consumed by the American Expeditionary Force in last December, according to a recent dispatch to the New York Sun. This might seem to indicate an alarming prevalence of coughs, but does not. It merely means that the soldiers used up that many lozenges as a substitute for candy, of which they could not obtain enough. They may have swallowed more than 31¼ tons of cough drops, probably did, but they obtained that many through the Y. M. C. A. post exchanges.

The American's demand for sweets is stupendous, as the Y. M. C. A.'s monthly consignment shows. To take the edge off his appetite for sweet things the Red Triangle canteens have ordered some staggering quantities of supplies. The biggest single item is sugar, most of it used in manufacturing chocolate and cookies in France. Just 2,850 tons of this will be needed.

It will take 1,325 tons of flour to keep the factories which are turning out cookies for the Y. M. C. A. busy for the next month. Condensed milk is in demand to the extent of 94½ tons, and milk powder, which is used in making chocolate, will weigh 36 tons.

The soldier is a great consumer of chocolate bars. Two hundred tons will be brought from America, and almost as much will be purchased in France. Jam is another big item, reaching 200 tons, to say nothing of a large quantity that will be obtained from French manufacturers. A total of 175 tons of candy has been requisitioned, and much more could be sold if there were ways of getting it on the shelves of the post exchanges.

Totalling up all the things that the Red Triangle storekeepers ordered shipped from America in a month, we find it amounts to 6,268½ tons. That's a big item, but it isn't nearly enough. Everything has been pared right down to the bone. If transportation presented no difficulties the Y. M. C. A. would show what "big business" really means. The trouble is that it's hard enough to get the stuff across the Atlantic, and once landed in a base port it runs up against embargoes and other transport difficulties galore.

**¶ The hoop around the food industry is the American Food Journal. With no pet theories—only expert opinions to expound; no wild ideas—only a safe, sane, conservative discussion of food, its making, packing and merchandising and food legislation. These form the platform of the American Food Journal.**

**¶ For thirteen years this magazine has digested Government reports without dryness, analyzed food legislation without prejudice, compiled vital statistics for those who want to know what is going on in the food field.**

**¶ The best thought in every phase of the industry is given to you each month. Dr. Barnard's editorials keep you up to the minute on the what and why of food.**

**¶ The subscription price is $2.50 per year.**

**¶ Send your name in today.**

**THE AMERICAN FOOD JOURNAL**

**411 Cunard Bldg. Chicago**

**BON BON**
*The Original Alum Baking Powder*

Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.

**J. C. Grant Chemical Co.**
**East St. Louis, Ill.**

**Illinois Vinegar Mfg. Company**

19th and Rockwell Streets
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Manufacturers of High Grade
**DISTILLED VINEGAR**

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Analyses of Foods, Drugs, Water and Industrial Products, Chemical and Bacteriological Examinations.
Investigations to Improve Processes. Sanitary Surveys.

**THE COLUMBUS LABORATORIES**
31 N. State St. Chicago, Ill.

*DEPARTMENTS: Food, Commercial, Medical, Milling and Baking. Expert Staff of Consultants. Court and Medico-Legal Work*

**BUNTE** Dutch Process **COCOA**
Carefully selected Cocoa Beans manufactured into cocoa by the Bunte Dutch Process make Bunte's the utmost in Cocoa goodness.

**BUNTE BROS.,** CHICAGO, ILL.
*Established 1876*

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The formula for Ryzon was worked out in America by a typically American scientific organization, and its ingredients—bicarbonate of soda, cornstarch, and monosodium phosphate crystals—are all produced in America.

Ryzon has been tested thoroughly and is endorsed by American chemists, by domestic science experts, by cookery editors and by American pure food institutions.

Ryzon is sold by representative American grocers.

And finally—Ryzon is used and approved by families, domestic science teachers and chefs of big hotels and restaurants in every State in the Union. They have found Ryzon scientific, economical and dependable, "The Perfect Baking Powder," whose accurate use insures successful baking results.

*Ryzon is 40c per pound. The Ryzon Baking Book (original price $1.00) containing 250 practical recipes, many of conservation value and others easily adapted to present day needs, will be mailed postpaid upon receipt of 30c in stamps or coin except in Canada.*

**GENERAL CHEMICAL CO.**
**FOOD DEPARTMENT**
**NEW YORK**

# What 5c Buys
## for Breakfast

Ten dishes of Quaker Oats cost five cents—about one-half cent per dish.

Ten dishes—a liberal serving for ten people, of the greatest food that grows.

Below we picture what five cents buys in other breakfast dishes. Just a tiny serving for one person nowadays.

Compare in another way.

Food is largely measured by its energy value—by calories. Here is what five cents buys in energy at this writing:

**What 5c Buys**
*in Calories*

| | |
|---|---|
| **In Quaker Oats** | **1,000 Cal.** |
| **In Round Steak** | **125 "** |
| **In Veal Cutlets** | **90 "** |
| **In Fresh Halibut** | **95 "** |
| **In Hens' Eggs** | **70 "** |
| **In Salt Codfish** | **65 "** |
| **In Canned Peas** | **95 "** |

This means that some foods cost you ten times Quaker Oats.

It means that breakfast cost can be vastly lessened by serving Quaker Oats.

And breakfast can be bettered. The oat is almost a complete food. It comes close to the ideal food.

It is the vim-food, the food for growth. Food which costs ten times as much cannot compare with oats.

And Nature has made few foods so inviting.

# Quaker Oats

*The Exquisite Vim-Food*

Quaker Oats attained its fame through flavor. It is flaked from queen grains only—just the rich, plump oats.

We get but ten pounds from a bushel. It means the cream of oats without extra price. You should insist on this grade.

***Two Sizes: 12c to 13c—30c to 32c***

***Except in the Far West and South***

***Packed in Sealed Round Packages with Removable Cover***

(2096)

# THE AMERICAN FOOD JOURNAL

C. A. Patterson, Publisher

H. E. Barnard, Ph.D. Editor

Wm. G. Davies News Editor

Cunard Bldg., Chicago

Vol. XIV MARCH, 1919 No. 3

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## The Truth

WHAT is the truth?

If you asked this question about religious belief you would get as many different answers as there are creeds. And while the answers would represent a wide difference of thought you would undoubtedly be inclined to credit each of the persons answering with being sincere because we have gotten into the habit of believing that when people talk about their own particular religion they talk sincerely.

But if you ask what is the truth about this or that business or this or that political issue the answer that you receive is very apt to be discounted in your own mind if you happen to believe differently, as having been prompted by some selfish consideration.

As I have been rambling around in the food field I find that much of this suspicion is in evidence here only perhaps a little more pronounced than in some other fields. Each person, each interest and each group of men seems to be ready to ascribe ulterior motives to each person or group that represents a different belief. Even the men who are classed as the scientists of the food world are not entirely free from this suspicion on the part of other scientists who represent an entirely different belief or who, in their investigations, arrive at a different conclusion.

One of the oldest of the modern food contests centers about the manufacture and sale of so-called butter substitutes. The opposition being represented by those who believe that the health of the human race depends upon the use of pure dairy products.

I know that to line up with one side is bound to subject this publication to the accusation of having been influenced and yet to publish a food magazine and not touch upon the contested points of the industry would be to publish a useless magazine.

But we are going to try to present the arguments which have appealed to us as being the most nearly the truth in this dairy and margarine contest and in our next number we will publish a story that we hope will appeal to you as presenting some new points on this mooted subject.

There are other food matters on which there are contests and we are not going to dodge the issue on a single one. Each will, as the time seems propitious, be made the subject of an article or editorial comment.

If you are a dietitian I think you will like Miss Write's article this month on Canned Meats. Next month another story in which she will tell about Canned Fruits will appear.

We have published two stories on Dehydration and the third will appear in the April number.

C. A. PATTERSON.

Making
Serve Them Puffed Grains
Bubble Grains Steam Exploded
Puffed to Eight Times Normal Size

**An Invitation**

***Which Mothers Should Accept***

Nearly every magazine you read invites you to serve Puffed Grains—for the children's sake.

That is, Puffed Wheat, Puffed Rice and Corn Puffs—all bubble grains, flavory and flaky.

And it pictures ways of serving which millions now enjoy.

***500 Million Dishes***

Last year mothers served in these ways over 500 million dishes. And these three Puffed Grains have become the favorite grain dainties.

Millions of children are getting whole wheat with every food cell exploded—whole wheat made wholly digestible.

They are getting whole rice puffed to flimsy, airy morsels, eight times normal size.

They are getting corn hearts puffed in like way—delightful food confections.

They are getting all these grains fitted for digestion as they never were before.

All are steam-exploded—all are shot from guns. All are prepared by Prof. Anderson's process to make them hygienic foods.

And all are fragile, flavory tidbits with a taste like toasted nuts. All are the most enticing grain foods in existence.

If you now serve one of them, try the other two. Each has its own fascinations.

And try serving them in more ways. They are ideal all-hour foods.

**Puffed Wheat**
**Puffed Rice**
**and Corn Puffs**
***Each 15c Except in Far West***

**The Quaker Oats Company**
**Sole Makers**

(2092)

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## VALUABLE BOOK THAT SHOULD BE IN THE REFERENCE LIBRARY OF EVERY PHYSICIAN, DOMESTIC SCIENTIST AND DIETITIAN

An exhaustive, highly informative treatise on Baking Powder as a healthful and convenient leavening agent, prepared by Thomas G. Atkinson, B. Sc., M. D.

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# The Economic and Dietetic Value of Canned Meat

## In This Article the Method of Producing One of the Most Popular Kind of Canned Foods Is Described

*By Eleanor Lee Wright*

ALTHOUGH the preservation of foods by canning originated in France during the Reign of Terror in 1795, it is now looked upon as an American industry. This is due to the fact that Americans have developed the invention. It is also said that the methods used by American manufacturers are entirely different than those originated by the Frenchman, M. Appert.

Eleanor Lee Wright

***This is the first of a series of articles which this expert will write. Fruit Canning will be described next month.***

From an economic and dietetic standpoint canned foods are rapidly taking a very definite place. Teachers of domestic science and dietitians as well as all others interested in foods are becoming increasingly interested in this class of foods. The variety of foods obtained in cans is also increasing, covering a field which not so many years ago were not thought of.

The fact that these foods are becoming staples in every day life is bringing the questions, "How are they canned?" and "What is their relative food value?" to the front.

Great quantities of many varieties of meats are now being canned. This includes corned beef, corned beef hash, roast beef, roast mutton, hamburger steak, tripe, sausage meat, potted and deviled meats, Vienna style sausage, ox tongues, calves' tongues, lunch tongues, lamb tongues, pigs' feet, sliced dried beef, sliced bacon and chili con carne.

Meat for canning is selected with discrimination. The meat selected for canning, however, is usually more lean than that sold in the fresh state, for the reason that it presents a better appearance than the heavier meat when canned. If heavy heat is used the excess fat is trimmed off. First the meat is cut into the size suitable for the can in which it is to be packed. Then it is placed in great clean tanks which resemble overgrown kitchen utensils. In these tanks it is partly cooked by steam or parboiled by scientifically correct methods. The reason for cooking the meat first is to secure shrinkage before it is placed in the cans. This is an economic argument for using canned meats. You are not paying for the large percentage of water and waste existing in fresh meat.

In canning corned beef this method varies inasmuch as the meat is first chilled, then cut and boned. Then it is cured by placing it in a pickling vat for the requisite length of time. After this the meat is trimmed free of excess fat and gristle and then put through the cutting machine to fit the various sized cans. One advantage today is that a very superior tin is used in canning to that used a decade ago.

### Cans Are Machine Filled

Like deviled and potted meats corned beef is filled into the cans by "stuffing machines." "Soup stock," which is really an everyday clear consomme, is added to fill up the spaces which may exist between the pieces of meat.

The next step offers another economic argument for the use of canned meats. After the meat leaves the stuffing machine it goes to an expert weigher, who weighs it to see that the can contains the correct amount. When the weigher finds that the "stuffing" man has "overfed" the can he takes some of the meat out; if the weight is not enough he adds to it. The uniformity of weight and, consequently easily estimated number of calories, is a substantial aid to dietitians and domestic science teachers.

After each can is properly filled it is capped and soldered under a rotary machine and then goes to a vaccuum machine to have all the air exhausted. The cans then glide down along, moving counters before a number of inspectors who are on the alert for leaks, and loose tin as well as inspecting the vents to see that they are tight.

### Sterilizing Methods

There are two methods by which the cans of meat are sterilized; the retort method and the water process. In the retort method the cans are placed in great boilers and subjected to steam pressure, varying in degrees (usually 215° to 250° Fahrenheit) and time according to the product and the size of the cans.

In the water process the cans are placed in water kept to the boiling point by means of steam pipes, and, like the retort method, cans are kept in the water for varied lengths of time, according to the product and the size of the can. When the cans come from this processing they are slightly bulged at the ends and for that reason are subjected to a cold water spray so that the contents are thoroughly chilled and the ends of the can are concave. The shape of the can should remain thus until opened again.

After another inspection the cans are washed in a caustic soda (alkali) solution to remove the grease, then in hot water and finally dried.

The next inspector before whom they pass uses a small mallet with which he taps the ends of each can. Should he note a hollow sound the can is thrown aside and the contents discarded. Good cans give a dull sound. The girls who paint and label the cans, as well as the men who pack them, give them further inspection.

Many concerns test a batch from every "run" for several days in rooms of fairly warm temperature. In preparing canned meats, such as lamb tongue and ox tongue, where it is necessary to preserve the form, the jars are filled by hand.

Some of the principal economic reasons for using canned meats are:

1. There is no waste, for it is 100% edible.

2. It is always tender—cooked properly—which again eliminates table and serving waste.

3. It requires no cooking, or at least so little for reheating that there is practically no fuel used.

4. The wide variety of uses, and the fact that many of them can be used three meals a day in good taste, is another strong argument for them.

5. The purity which is assured by the government stamp of approval and the label of the manufacturer is in their favor.

6. Time and labor are also saved.

The food value of many canned meats is very high. Pound for pound the following comparisons are interesting examples: Canned roast beef and canned tongue are both greater than loin of mutton and each has approximately twice the food value of round steak or veal cutlets; and canned roast beef also has more calories per pound than roast leg o' lamb.

So far, meat canning in the home has not been entirely successful and therefore not used extensively. This is due, perhaps, to the lack of proper equipment. An advantage which the commercial canner has is the absolute knowledge that the meats he uses are fresh, and have been properly chilled.

There is one noticeable characteristic regarding canned meats: although a few are used nationally most of them are more limited as to popularity, each having a particular locality or section where it is favored. An example of this is tripe, which is used extensively in the south and southwest, although the territory is now being extended to central and border states. It is interesting to know that the best canned tripe is choice cuts of honeycomb tripe, cut in four-inch squares, parboiled and packed in various sized tins with milk. The twenty-four ounce net tin contains approximately one-half pint pure, sweet milk. It is sterilized for two hours at the proper temperature.

Some people hold the idea that canned hash, particularly, is not fit for use. This is probably due to the fact that they are not familiar with the ingredients. Reliable manufacturers use selected products and trade-marked goods can be depended upon. Plate brisket, having superfluous fat and gristle removed, is used with selected potatoes, choice onions and a suitable assortment of spices which give it the desirable, snappy, pungent flavor. The ingredients are cut up fine, mixed and seasoned. It is then machine packed in sterilized cans and cooked in steam retorts at the correct temperature. The cooking process, in this particular instance is done after the product is sealed. The natural juices and flavors are thus retained. The cans should be placed in boiling water before opening, thus having the corned beef hash ready to serve.

One of the most universally used canned meats is Vienna style sausages. These sausages are made of equal portions of lean pork and beef which is free of sinew and superfluous fat. Huge meat-grinders grind the meat to the correct degree of fineness, after which the chefs add a variety of spices which give it the noted special flavor. From the mixing machines it is stuffed in carefully prepared casings and then cut the proper length to fit the various sized cans. These sausages are hand-packed, sealed and sterilized. It is interesting to know that average families use the number one tins, which usually contain ten and one-half ounces.

Just as manufacturers of any commodity differ in the minute methods employed in their products.

Interior View of a Canning Factory *Courtesy of Wilson & Co.*

producers of canned meats vary their processes slightly in a few details, according to the individual ideas. There may be a few slight differences in the temperature, time, method of handling or equipment.

There are four kinds of canned tongue: ox tongue, calves' tongue, lamb tongue, and lunch tongue.

**Vienna Sausage Ready for Eating**

These are cured quite similarly to the method used in corned beef, varying a trifle with the type of meat. After the tongues are removed from the brine, they are cooked for several hours, starting in cold water, and changing the water several times. After this they are trimmed and canned, each being rolled and placed separately in a can or glass jar. They are sealed up and again given a hot water bath. Sometimes the "vent" is left open, in which case the final heating is interrupted to seal it up.

**What's In It?**

**The following shows the food analysis of canned roast beef:**

| | |
|---|---|
| **Water** | **64.77%** |
| **Fat** | **10.58%** |
| **Protein** | **21.50%** |
| **Ash** | **2.73%** |

The use of chemicals to preserve foods is not employed in modern methods of manufacture. One reason that preservatives are not used in canned meats is the products are exposed to such a high temperature during the processing that preservatives are not necessary to prevent decomposition. This means that the manufacturer has established up-to-date scientific methods. The purchaser has the label on the can from which to find out for himself whether or not the product purchased contains any preservative.

**Appetizing Roast Beef**

Whether you are teaching a class of dietetics of cookery, either experimental or practical, there would surely be added interest by giving a lesson on canned meats or by including it as a part of the meat lesson. May the suggestion here be a real aid.

### Lesson on Canned Meats

I. The instructor may read this article to the class or assign a student to prepare an article on the subject to suit local and immediate needs.

II. Another student should be assigned to make an investigation of the local conditions, including:

(1) List of canned meats sold in groceries and delicatessens in the community.

(2) Which canned meats—tongues, corned beef, roast beef, etc.—are most popular? Why?

**All Meat Is Strictly Inspected Before It Is Cut Up**

(3) What canned meats are commercially distributed that are not used in the community, stating (if possible) why they are not used: The reasons why may include:

(a) Lack of knowledge concerning the method of production.

(b) Prejudice against the type of meat.

(c) No commercial distribution of the product in the vicinity.

(4) What class of people use canned meats? Leisure, working class, foreign element? Why? Is it due to indifference or precedence?

(5) Are they used:

(a) By the woman who placed a high value on her time as regards labor?

(b) When time does not permit preparing fresh meat?

(c) Or for emergencies only? Why?

III. Assign another student to compile:

(a) A list of suitable ways to garnish various canned meats when: 1, served cold; 2, served hot.

(b) A list of suitable dishes to be served with these meats from dietetic and aesthetic standpoints.

IV. Prepare boiled corned beef.

(a) Compare with canned corned beef: appearance, tenderness, flavor; cost, including fuel, time and labor; conclusions.

V. Prepare roast beef and compare canned roast beef as in Section IV.

# What Do We Mean By The Term "Standardized Milk"?

## The Addition or Subtraction of Butter Fat from the Natural Product is a Common Practice About Which Little Has Been Said

*By Dr. L. L. Van Slyke*

THE standardization of market milk is attracting much attention at the present time. Very little information is available in regard to it. This article has for its purpose a discussion of this subject with a view to furnishing some desirable facts. The treatment is intended to be suggestive rather than exhaustive.

What do we mean by the standardization of milk? Or, perhaps, it is better to put the question in this form: "What do we mean by standardized milk?" We get no help from the dictionary. What kind of a standard have we in mind? Is it a sanitary standard, covering the number of bacteria in milk, the amount of dirt, acidity, and the like? Is it a standard of composition based on fat and solids? Is it something else?

It becomes obvious at once that the expression "standardized milk" does not carry its meaning on its face. As a matter of fact there is no generally recognized, authentic definition. Our chief interest in this connection is some sort of a reasonable statement which applies to conditions in New York State and which can be utilized as a basis for our discussion.

### Standardized Milk

Another expression is in common use, synonymous with standardized milk, and that is "adjusted milk." It is therefore desirable to incorporate these two terms in our definition.

The following statement is offered as a definition of the kind of milk that forms the subject of our discussion:

*"Standardized milk or adjusted milk in which the original fat content has been changed, and also the ratio of fat to the other milk solids, by the removal of milk-fat, or by the addition of skim-milk, or by the addition of cream."*

**Food officials are loath to discuss the standardization of market milk. Most of the states have specific statutes which define milk as whole milk and fix a definite butterfat standard. In spite of this legislation the milk sold in most large cities is standardized before it is bottled. Jersey milk is skimmed; Holstein milk is enriched by the addition of butterfat. The consumer gets a product of uniform butterfat content, but it is not whole milk and in many cases it is not legal milk. Dr. L. L. Van Slyke's discussion of this important food problem is timely and valuable.—Editor's Note.**

Of course, when it comes to legalizing the sale of standardized or adjusted milk, then we have to consider the application of this definition under conditions of specific limitations and regulations, as will be pointed out later in some detail.

We will now consider the subject in the following relations:

(1) Effect of standardizing or adjusting milk upon the composition of normal milk.

(2) Relations of standardized or adjusted milk to producers, distributors and consumers.

(3) Advantages and objections.

(4) Legal regulations relating to the production and sale of standardized or adjusted milk.

### I—Effect of Standardizing Milk Upon Its Composition.

The fat content of milk can be changed, with a change of ratio of fat to other solids, either by decreasing or by increasing the percentage of milk-fat. In either case we have a standardized or adjusted product.

We will first consider the case in which we have a reduction of milk-fat. The percentage of fat in milk can be decreased, with change of ratio of fat to other solids, either by removal of fat or by addition of skim-milk. This is ordinarily accomplished in practice by separating a portion of the milk and then adding the skim-milk thus obtained to the remaining whole milk. Just how the reduction of the percentage of fat is accomplished is, however, immaterial for our present purpose. What we want to know, now is the effect of such reduction upon the composition of normal milk.

When we remove cream from milk, the chief solid constituent that we take out is milk-fat. It is true that we also take out small amounts of other solids, which we commonly speak of as solids-not-fat, these including sugar, casein, albumin and salts of milk. But, for all practical purposes, in studying the effect of removal of fat on composition of milk, we are justified in saying that only fat is removed. Therefore, when we take cream from milk, we reduce the percentage of fat in the milk but not appreciably the percentage of the other solids, the solids-not-fat.

### Figuring It Out

We can readily make these statements clear by a few illustrations. The figures given are sufficiently accurate for our purpose and for all practical purposes.

We will start with normal milk containing 4 per cent of milk-fat and 9.1 per cent of solids-not-fat. When we take 100 pounds of such milk and remove 1 per cent of fat, that is, 1 pound of fat, it is obvious that we have 3 pounds, or about 3 per cent of fat left in the milk. How about the solids-not-fat? We have essentially the same amount as in the normal milk before removal of fat, that is, about 9.1 per cent. We can bring out something more clearly what happens by comparing this standardized or adjusted milk, made to contain 3 per cent of fat.

with the composition of normal milk containing 3 and 4 per cent of fat.

**Composition of Normal and "Standardized" or "Adjusted" Milk**
(Changed by removal of cream)

| | Per ct. of fat | Per ct. of solids-not-fat | Ratio of fat to solids-not-fat |
|---|---|---|---|
| Normal milk containing ....... | 3 | 8.60 | 1 : 2.87 |
| Normal milk containing ....... | 4 | 9.10 | 1 : 2.27 |
| Adjusted milk containing .... | 3 | 9.10 | 1 : 3.03 |

These figures show clearly that in milk standardized or adjusted to contain 3 per cent of fat, made from normal milk containing 4 per cent of fat, we have the same amount of fat as in normal milk containing 3 per cent of fat, but we have the 9.1 per cent of solids-not-fat contained in normal milk carrying 4 per cent of fat. Normal milk containing 3 per cent of fat contains an average of about 8.60 per cent of solids-not-fat, while standardized or adjusted milk containing 3 per cent of fat and made from normal milk containing 4 per cent of fat, contains 9.1 per cent of solids-not-fat. In other words, such a standardized or adjusted 3 per cent fat milk contains per 100 pounds one-half pound more of solids-not-fat than does normal 3 per cent fat milk.

### Ratio Changes

In the last column of the table above, we have the amount of solids-not-fat for each pound of fat in milk in the different milks. It is obvious that the removal of fat changes very noticeably the ratio or proportion of fat to solids-not-fat, raising it from 2.27 in normal 4 per cent fat milk to 3.03 in the adjusted or standardized 3 per cent fat milk.

Similar results, only more striking, are shown when normal milk containing 5 per cent of fat is adjusted or standardized to contain 3 per cent of fat. We have the results shown by the following figures:

**Composition of Normal and "Standardized" or "Adjusted" Milk**
(Changed by removal of cream)

| | Per ct. of fat | Per ct. of solids-not-fat | Ratio of fat to solids-not-fat |
|---|---|---|---|
| Normal milk containing ....... | 3 | 8.60 | 1 : 2.87 |
| Normal milk containing ....... | 5 | 9.50 | 1 : 1.90 |
| Standardized milk containing .... | 3 | 9.50 | 1 : 3.17 |

In this case the standardized or adjusted 3 per cent fat milk, made from normal 5 per cent fat milk, contains the solids-not-fat belonging to normal 5 per cent fat milk, that is, about 0.9 pound more per 100 pounds than in normal 3 per cent fat milk. The ratio of fat to solids-not-fat in the adjusted milk is 1:3.17, which is much higher than in normal 3 per cent fat milk.

We will give one more illustration, showing the results of adjusting normal 5 per cent fat milk to standardized milk containing 4 per cent of fat.

**Composition of Normal and "Standardized" or "Adjusted" Milk**
(Changed by removal of cream)

| | Per ct. of fat | Per ct. of solids-not-fat | Ratio of fat to solids-not-fat |
|---|---|---|---|
| Normal milk containing ....... | 4 | 9.10 | 1 : 2.27 |
| Normal milk containing ....... | 5 | 9.50 | 1 : 1.90 |
| Adjusted milk containing .... | 4 | 9.50 | 1 : 2.37 |

In this case the adjusted milk contains 4 per cent of fat but it contains the amount of solids-not-fat belonging to normal milk containing 5 per cent of fat.

### Vitamines Come to Rescue of Dairyman

**The dependence of the human body on vitamines and the fact that vitamines are present in milk in greater abundance than in other foods is increasing the demand for milk among mothers and reducing the opposition to prices, which enable the dairymen to produce and deliver milk at a profit.**

The figures furnished by the three preceding illustrations all go to show that *when the percentage of fat in milk is reduced, the resulting standardized or adjusted milk contains the percentage of solids-not-fat in the original normal milk.* Therefore, the food value of the adjusted milk is somewhat greater than that of normal milk containing the same percentage of fat as that to which the richer milk has been reduced. Standardized or adjusted milk containing 3 per cent of fat and made from richer milk is richer in solids-not-fat than normal milk containing 3 per cent of fat. Standardized or adjusted milk containing 4 per cent of fat and made from richer milk is richer in solids-not-fat than is normal milk containing 4 per cent of fat.

Next, let us see what happens to the composition of milk when it is standardized or adjusted by the reverse process, that is, by the addition, instead of removal, of cream. Briefly answered, such standardized milk contains obviously more fat than the original milk, but it contains essentially the same percentage of solids-not-fat as the original milk. Such adjusted or standardized milk contains a smaller percentage of solids-not-fat than does normal milk containing the same percentage of fat.

We will illustrate these statements first by seeing what happens when we add enough cream to normal 3 per cent fat milk to make it into an adjusted milk containing 4 per cent of fat.

**Composition of Normal and "Standardized" or "Adjusted" Milk**
(Changed by addition of cream)

| | Per ct. of fat | Per ct. of solids-not-fat | Ratio of fat to solids-not-fat |
|---|---|---|---|
| Normal milk containing ....... | 3 | 8.60 | 1 : 2.87 |
| Normal milk containing ....... | 4 | 9.10 | 1 : 2.27 |
| Adjusted milk containing .... | 4 | 8.60 | 1 : 2.15 |

Here, in the case of the normal 3 per cent fat milk, made into standardized 4 per cent fat milk, we see that, while the fat increases to 4 per cent, the solids-not-fat remain at 8.60 per cent just as in the normal 3 per cent fat milk. The adjusted milk contains the fat of 4 per cent milk but the solids-not-fat of normal 3 per cent fat milk. Such standardized milk has less food value by one-half pound of solids-not-fat per 100 pounds of milk than is contained in normal milk containing 4 per cent of fat. The ratio of fat to solids-not-fat is reduced from 2.27 to 2.15 for 4 per cent fat milk, normal and standardized.

### Adjusting 3% Milk

Let us take one more illustration, adjusting normal 3 per cent fat milk to standardized milk containing 5 per cent of fat.

**Composition of Normal and "Standardized" or "Adjusted" Milk**
(Changed by addition of cream)

| | Per ct. of fat | Per ct. of solids-not-fat | Ratio of fat to solids-not-fat |
|---|---|---|---|
| Normal milk containing ....... | 3 | 8.60 | 1 : 2.87 |
| Normal milk containing ....... | 5 | 9.50 | 1 : 1.90 |
| Standardized milk containing .... | 5 | 8.60 | 1 : 1.72 |

We have here in more exaggerated form results similar to those obtained in the preceding illustration. The adjusted milk contains 5 per cent of fat, but only 8.60 per cent of solids-not-fat instead of 9.50 per cent of solids-not-fat, which is the amount that normally goes with milk containing 5 per cent of fat. The ratio of fat to solids-not-fat drops from 1.90 in the normal milk to 1.72 in the standardized milk.

Summarizing the results which have been presented in showing the effect of standardizing or adjusting milk upon the composition, we have seen:

(1st.) When we decrease the percentage of fat in normal milk by removal of cream or by addition of skim-milk, we readjust not only the percentage of fat but particularly the ratio or proportion of fat to the other milk solids. This readjustment has the effect, it may be said, of standardizing or adjusting the solids-not-fat *up* in relation to fat.

(2nd.) When we increase the percentage of fat in normal milk by the addition of cream, we readjust the ratio or proportion of fat to solids-not-fat in such a way that we standardize or adjust the solids-not-fat *down* in relation to fat.

(3rd.) When we standardize or adjust milk by reducing the percentage of fat, we increase somewhat the food value of the milk in solids-not-fat in comparison with normal milk containing the same percentage of fat as the standardized or adjusted milk. Thus, for example, standardized 3 per cent fat milk, made from 4 per cent fat milk, has somewhat more food value in solids-not-fat than has normal 3 per cent fat milk.

(4th.) When we adjust or standardize, milk by addition of cream, we decrease somewhat the food value of the milk in solids-not-fat in comparison with normal milk containing the same percentage of fat as the adjusted or standardized milk. Thus, for example, standardized or adjusted 4 per cent fat milk, made by adding cream to 3 per cent fat milk, has somewhat less food value in solids-not-fat than has normal 4 per cent fat milk.

## II—Relations of Standardization of Milk to Producers, Distributors and Consumers.

Producers who sell milk to distributors may have little or no interest in the standardization of milk. However, it is probable that some questions now unforeseen might develop, affecting the interests of such producers. Those producers who sell milk directly to consumers might find it to their advantage to standardize their milk, especially when their herds may produce milk below the minimum legal standard. It would also be of advantage when milk of fairly uniform fat content is desired by one's customers. It is probable, however, that standardization would be made use of by producers only in exceptional instances.

The desire to introduce the practice of standardizing or adjusting milk comes mainly from distributors who handle large amounts of milk gathered from an extended territory for the purpose of supplying cities. The milk which they purchase from individual producers varies more or less widely in composition, especially in percentage of fat. Under present methods of mixing milk in a haphazard way, the milk distributed to consumers varies more or less in composition. If standardization is permitted, a product of much greater uniformity in percentage of fat can be furnished. Further, in case at any time a large amount of normal milk should drop below the minimum legal standard of 3 per cent of fat, the milk before distribution can easily be brought above such standard by adjusting. Again, dealers who desire to furnish regularly to customers milk above a definite guaranteed percentage of fat can do so more conveniently by means of standardization than is possible under present conditions.

In relation to consumers, standardization of milk is a matter of practical interest. It would be practicable for them to obtain milk of a more uniform composition and also of any definite composition in milk-fat, whether 3, 4, 5 or other percentage were desired.

The statements indicate some of the more obvious and important relations that standardization of milk bears to the three parties interested.

## III—Advantages and Objections in Relation to Standardization of Milk.

The more obvious advantages that would result from the standardization of market milk have just been stated under the preceding heading. Are there any disadvantages or objections? There may be.

(1st.) Without some kind of legal control, the result of standardizing or adjusting market milk would be the inevitable tendency to lower the composition of such milk to a point not much above the minimum legal standard, at present 3 per cent of fat and 11.50 per cent of milk solids in New York State. Market milk would not only tend to become fairly uniform the year around instead of varying as it now does, but unfortunately the uniformity would be in the direction of a lower percentage of fat than now prevails. The high value of milk-fat in the form of cream would exist as a constant temptation to standardize nearly all normal milk above 3.50 per cent of fat to a lower fat content.

(2nd.) Milk cannot be standardized or adjusted without extra handling and this results in exposure to possible bacterial contamination. Without special care in manipulating milk when going through the process of standardization, the sanitary character may easily be unfavorably affected.

(3rd.) In the case of milks enriched by the addition of cream, the consumer gets somewhat less food value in solids-not-fat than he would in buying normal milk having the same percentage of fat. However, this difference is hardly large enough to constitute a serious objection.

(4th.) There is on the part of many consumers a vague feeling of objection to having anything done to market milk that affects its composition; and such persons think that standardizing should not be permitted under any conditions. For many years we have been careful to surround normal market milk with jealous legal protection and until recently to recognize as legal the sale only of normal milk whatever its composition. Many have thus come unconsciously to regard normal milk, that is, the milk produced by the cow, as something the composition of which should not be tampered with in any way, indeed, as something having an almost sacred kind of character. Of course, this is largely a matter of psychology rather than of dairy intelligence. We know that the composition of much normal market milk can be improved in some ways by standardization.

(5th.) Objection is likely to be made to the standardization of milk on the ground that the disturbance of the ratio of fat to solids-not-fat may have objectionable results in connection with the feeding of infants. This objection has little force when we consider the manifold ways in which normal milk is "modified" for infant feeding, producing changes in composition much more extensive than take place when milk is standardized. On the other hand, standardization should result in greater uniformity of composition, a condition especially desired in case of milk for infants.

## IV—Legal Control of Standardization of Market Milk.

All who have devoted any thought to the subject of adjusted or standardized milk are agreed (1) that promiscuous, uncontrolled standardization should not be considered under any circumstances; (2) that, if such treatment of milk is permitted, it should be controlled by law as completely as practicable; (3) that this must be done in order to prevent the obviously objectionable conditions which would result from lack of such control.

Among the more important conditions that would be necessary to make standardization safe are the following:

(1) No one should be permitted to prepare standardized milk for

(Continued to page 39)

# This Is No Time to Discourage Food Producers

## While the World Cries for Food Some Legislators Are Trying to Obstruct The Wheels of Production

*By William G. Davies*

THE food needs of the world today compel food producers of this country to think in big figures. They demand that unusual efforts be put forth to produce more food and one of the best ways of increasing our supply lies in conservation. Conservation, if it means anything, means saving the waste; making extra efforts to see that every particle of food material which is produced shall be offered to consumers in a wholesome, sanitary form so that it may be eaten as food and serve the purpose for which it was created. This is a truth which, like all truths, has always existed but which has only recently been recognized since the war forced the United States to assume the role of "principal food provider" of the world.

### Facing Big Figures

Now let us face some of these big figures and see what the big lesson is that they would teach us. It would seem that this lesson should be obvious to any reasoning person but in the light of recent events it is apparent that either selfishness or ignorance has resulted in temporary blindness on the part of many who should have been the first to grasp the situation. .

Shortly after the signing of the armistice Mr. Hoover gave a report of food conditions in Europe which showed that in western Europe alone something over 180,000,000 men, women and children are facing a serious food shortage, in some localities actual starvation being imminent. There was at that time and is yet a shortage of practically all kinds of foods, but the deficiency which caused the greatest worry was the shortage of milk and milk products. The dairy herds of some parts of Europe were completely wiped out during the war and the herds of all the countries immediately contiguous to the battle area were greatly reduced in number and the food production value of those that remained was impaired by improper feeding and improper care during the war.

The reason why the shortage of milk and milk products is considered the most serious (to continue our elementary lesson) is because the human being, no matter of what age, could live on milk alone. Milk is a whole food supplying all the needs of the body. Other kinds of food are desirable for adults, but in their absence milk would supply all that is necessary. Also, we may state here, that if milk was lacking the adult human being could get along very well provided there was a sufficient amount of eggs, meat, green leaf foods, seed foods and tubers. The infant and growing child, however, who has not arrived at that period where his digestive organs will assimilate the necessary food elements from other than milk must have milk and plenty of it. Therefore, in as much as the diet of the adults may be eked out during the shortage period by stocks of other-than-milk foods and inasmuch as other-than-milk foods can be produced much more quickly than the dairy herds can be built up, the greatest problem that faces this country and the world is the problem of feeding the babes and children.

### Find New Process to Utilize Buttermilk

**Through a centrifugal process of recovery, much of the buttermilk produced in the commercial creameries may be made into soft cheese, as determined through investigations made by the department of dairying at the Ohio Experiment Station. Because the simple methods of converting skimmilk into cottage cheese do not work well with creamery buttermilk and are not adapted to large scale operations, many thousands of pounds of potential soft cheese, nearly equal in food value to meat, have been run into sewers daily by large creameries. With the new process the soft cheese may be recovered.**

**Under creamery conditions, with a 12-gallon capacity machine, from 350 to 400 gallons of buttermilk may be run through the centrifuge daily. The yield from a gallon of buttermilk is about one pound of cheese curd. The cheese may also be mixed and salted in the machine; it is then ready to be sold directly as plain cottage cheese. Unlike the buttermilk, the cheese is sufficiently concentrated so that it may be shipped or stored economically.**

Now let us go into some more big figures.

### United States' Needs

The population of the United States proper is about 100,000,000 men, women and children. The dairy herd in the United States numbers about 23,000,000 cows, according to the estimates of the government and of various scientists who have given consideration to this matter. Now after figuring out the amount of milk necessary as food for the infants and growing children of this country and the amount of milk and milk products which scientists figure should be consumed by the adults of this country it is estimated by the government experts and others that the dairy herd of the United States should number at a minimum 32,000,000 cows if the milk needs of this country alone are to be met. In other words, the milk shortage in the United States, considering only the needs of this country, is about 30 per cent.

Now (keep in mind, please, the shortage in the world milk supply as indicated by the above figures while reading the next), let us see what is actually being done with the milk that is produced in this country.

The United States Secretary of Agriculture, in his report on dairy products for 1917, says that "The estimated production of milk was over eighty-four billion pounds.

Thirty-four billion pounds of this was devoted to butter making. Of this thirty-four billion pounds about thirty billion pounds was left as skimmed milk, a by-product."

What was done with this thirty billion pounds of skimmed milk, this thirty billion pounds of good, wholesome food which according to the declaration of science contains practically all of the protein, sugar and mineral salts of milk?

Less than two per cent went to feed human beings in the form of condensed or dried skimmed milk or cottage cheese. The 98 per cent, or twenty-nine billion, four hundred million pounds was wasted by throwing away, or it was fed to animals. What part was thrown away and what part was fed to animals there are no figures to prove, but if you have looked into the dairying proposition very much you must know that the amount thrown away was very large—and over one hundred and eighty million people of Europe facing want and starvation.

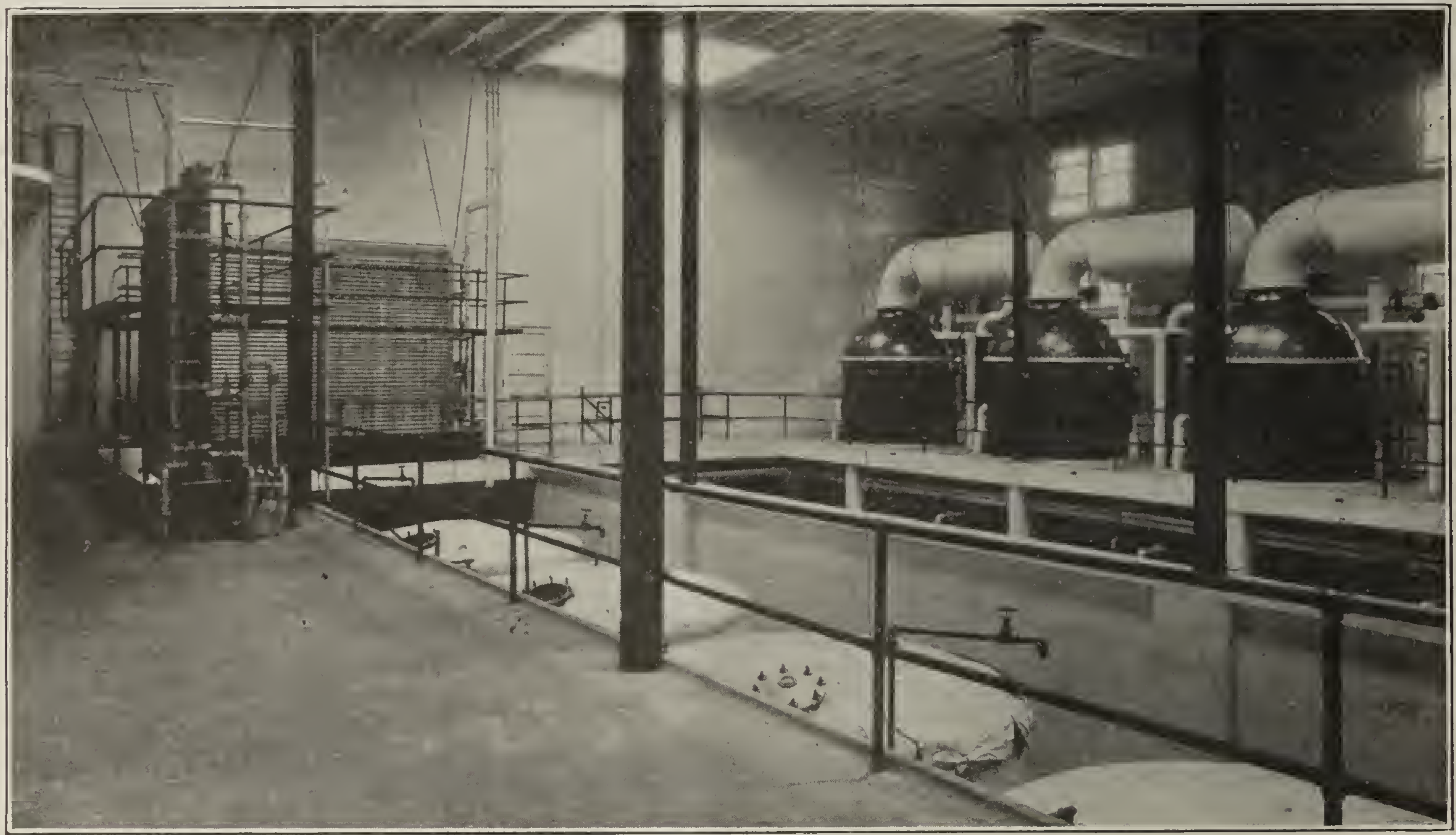
Right here let me suggest a problem in mathematics which I have neither the time nor space to work out but which will furnish you with a profitable evening's employment. If the milk supply of the United States is 30 per cent short of the requirements of the people of this country alone and if thirty-four per cent of the available supply is fed to animals or permitted to go to waste (as it is now), how long will it take us to make up the deficiency of the world's milk supply?

It is true that that portion of the milk supply that was fed to animals will come back to us in food or raiment, but most of that feeding was not done to provide food or raiment but because the dairy farmer did not know what to do with the skimmed milk. There are other cheaper foods for stock that would have been provided in part by the farmer if he had had a ready market for his skimmed milk.

After thinking over the above figures and their import, if you are an unprejudiced person and if you do not know the rest of this story, you would almost be willing to subscribe to a fund as a prize to any one who would discover a good way to turn this great stream of skimmed milk, with its strength-giving food elements, from a channel that leads to wastage to a channel that would take it to the mouths of human beings. But let us see how some of our people actually regard such an economy.

In 1915 a method was discovered of combining evaporated skimmed milk with fat from the cocoanut and producing a palatable product that contains all the food values of the skimmed milk plus the heat producing properties of the cocoanut fat. This product was produced in a condensery, where every precaution was observed and the result was purity and wholesomeness beyond that accomplished in very many of our creameries. The product was marketed in cans at a moderate price and advertised only for what it was.

By this discovery a market was created (limited to be sure while the product is new), by which the dairyman may divert some of this formerly wasted food to a channel by which it would reach the end for which it was intended, human consumption. The dairyman profited through the sale of his milk and humanity as a whole profited by the salvage of formerly wasted food, but—



A Sanitary Condensery Where Skimmed Milk Is Evaporated and Cocoanut Fat Added

In Ohio an old law was dug up and the Supreme Court of the United States, passing on a technicality and stating that there was no question as to the food value of the product or the honesty of methods of marketing, decided that it could not be sold in Ohio. This decision was reviewed in our January issue and if the matter had stopped with that technical legal decision nothing more would have been said about it.

But some very potent force seems to be determined that this new food shall not have a chance, at least a fair chance to continue to offer a saving medium for wasted food and Colorado soon after was moved to deny it a market. Since then at least three other states have introduced laws which tend to stop or hamper the sale of this product, and there are indications that still other legislatures in which some members, prompted by the belief or the selfish and very absurd fear that the dairy interest may be jeopardized, are planning similar action.

In our investigation of the causes for this antagonism we have not run into a single person who will say that this product is not wholesome or that it does not offer a good outlet for a real food which would otherwise be largely wasted. In fact, we have been able to find none who could give a sound reason why this adverse legislation is being encouraged. About the only excuse for the opposition seems to rest upon the scientific theory that whole milk contains the vitamines necessary to the growth and well-being of a child and that some dealers have sold this product to ignorant people for whole milk.

Let us look into this proposition. How is this product advertised and sold? Are the manufacturers seeking to injure the development of our race by substituting an injurious food in the child's diet?

### Carefully Marketed

The manufacture of this product was started in the early part of 1915. A name was chosen for the compound which in itself was meaningless as far as it could be interpreted from the food standpoint. The same name could be used with equal appropriateness for a shoe or a steamboat. This was done purposely as the manufacturers feared that such a name as "Near Milk" or "Milkine" might be interpreted as an attempt to invade the whole milk field. A label was placed on the can which bore this name and immediately under it in big type these words: "A Compound of Evaporated Skimmed Milk and Vegetable Fat." Under this were the words, "Contains 7.8 per cent vegetable fat, 25.5 per cent total solids."

The original label was questioned by Commissioner Foust of Pennsylvania and immediately the manufacturers took the matter up with the Chemistry Department of the U. S. Department of Agriculture, offering to make any change suggested by the department. The manufacturer also went to Mr. Foust and as the result the label which is used at present was drawn up. It has never been attacked under the mis-branding law.

In the preparation of the advertising copy the same care was taken by the producers and their advertisements have never been attacked as false or misleading. The company putting out this product has never had to stand trial in any court for putting out an unwholesome food, for misbranding or adulteration or for wrongful methods of marketing. There are many other legitimate and well-thought-of food concerns that cannot boast of as good a record as this.

### Watches Retailers

And this company goes farther. It subscribes to a clipping bureau which has instructions to clip and send them any editorial matter or any advertisement that would tend to place this product before the people in the guise of condensed milk, whole milk or anything but a compound, as stated on the label. When the manufacturers learn of any crossroads grocery store or large dealer offering their product as an infant's or child's food or as a substitute either by inference or direct statement for whole milk, a letter goes to that groceryman or dealer asking him to advertise and sell this product for just what it is and not for anything else. Do all food manufacturers go so far in their desire for honest marketing?

The Food Control Officials certainly will not oppose this product for few foods come to their attention with a cleaner record for keeping within both the letter and spirit of the law. The Dietitian and Food Chemist surely will not fight the use of this product because it is as pure and contains just as many of the needed constituents as many other foods which are recommended. It may not have a sufficiency of vitamines, but neither has bread, meat, cocoa or a host of other things and IT IS NOT ADVERTISED OR SOLD AS A CHILD'S FOOD. And certainly the dairy interests should not oppose it, as it offers a remunerative outlet for an otherwise largely wasted product of the dairy. Many manufacturing companies make a large part of their dividends out of their by-products and why should not the dairy industry do the same thing?

In two states laws have been proposed that would compel this product to be sold as "Imitation Milk," a title that is dangerous to the ignorant consumer and to the whole milk industry. Such a label would immediately let down the bars to the salesman's ever-ready next statement, "just as good as milk," and this label and this incentive to fraud in selling would be the rankest kind of an injustice to the ignorant consumer and to the product which up to this time has been labeled and sold as a "compound" and not as milk or imitation milk.

Another proposed law would compel the manufacturers of all such compound products to color them so that they will not have the appearance of milk. We wonder if these same legislators would not try to pass a law to paint all storage eggs green so that they cannot be sold by a crooked groceryman for strictly fresh eggs. Also, if the action of a few crooked grocerymen in selling this compound for what it is not labeled and advertised to be is sufficient grounds for refusing it a market, would not the action of the few crooked grocerymen in selling storage eggs for fresh eggs be grounds for suppressing the cold storage industry?

Four years ago there was introduced in the national legislature a bill which, among other things, would have compelled all oleomargarines to be called butterine. The dairy interests considered this bill dangerous to their interests and that they considered any name which sounded like butter to be dangerous is indicated by the fact that they had drawn up another bill which would have compelled all of this product to be known as margarine. Now the name of margarine is no farther from the name of butter than Hebe is from the name milk, and to the average person it is just as meaningless in itself. If the manufacturers of Hebe had given it the name Imitation Milk when it was first put out it is doubtful if they would have gotten by many of the food control officials with it.

### Label Is Clear

If the present statement on the label of Hebe does not inform the consumer that this product is not whole milk, but a combination of evaporated skimmed milk and vegetable fat, then it is certain that the words Imitation Milk would not carry the message. If the buyer reads a Hebe label he must certainly know what is in the can. If he will not read the label you might put ambrosia or bug poison on it for all the effect it would have in either stopping or helping to make the sale.

We believe that this product is only the forerunner of many new combinations in the food world which will give to hungry humanity more and better food. Vegetable oils are just beginning to be known and one of their greatest and best uses is in just such combinations as that referred to above. If the

Continued on Page 41

# Errors of Retail Distribution and Marketing

## A Synopsis of the Report Given at the Convention of the American Public Health Association

*By Marion Talbot*
*University of Chicago*

TWO years ago the American Public Health Association took significant action in adding to its list of sections one on Food and Drugs and including in the new section a Committee on Retail Distribution and Marketing.

The Committee in its first report adopted as its leading principle the thesis that the elimination of every kind of waste in the distribution and marketing of food supplies must be enforced as a war measure if the nation is not to suffer unduly in physical vigor and in the power to work out the ideals of democracy. Some of the elements of waste were formulated as follows:

### Elements of Waste

1. Lack of organization of the supply with reference to the distance between the place of production and the place of use, viz., the needlessly long haul and duplications of haul.
2. Lack of terminal facilities in the cities and of refrigeration and storage arrangements.
3. Lack of standardization in many kinds of foods, with the notable exception of grains.
4. Lack of standards of service among the distributing agencies, growing out of the competitive struggle and the absence of adequate public control. The abuses to which reference is made are, among others, corrupt reporting as to the nature of transactions performed (analogous to the abuse of trust), the use of dishonest weights and measures, adulteration and misbranding of food, agreements for maintaining high prices (forestalling, regrading, etc.), and monopoly methods in marketing essential foodstuffs.
5. Wasteful multiplication of retail agencies.
6. Lack of technical standards among retailers especially among those who deal in retail groceries.

The Committee submitted two other suggestions, namely:

a. The time has passed when from the standpoint of health there is anything to be feared from food which has been kept in cold storage under right conditions. The housekeeper is still reluctant to accept the verdict of the sanitarian because the food as she receives it and perhaps as she treats it in her kitchen is often so far from satisfactory. It would be a service in extending the use of the cold storage method of preventing waste of food if the Committee on Cold Storage would consider ways and means of getting food from the cold storage warehouse to the consumer in better condition, and also undertake a campaign of education for the housekeeper and cook.

b. The Committee suggested that an effort be made to establish standards for the condemnation of foods. There is not only great divergence in the different standards adopted, e. g. bob veal, but great confusion between aesthetic and hygienic grounds of condemnation. It seems to the Committee that the exigencies of war demand a study of salvaging the food supply to the fullest possible extent.

In its second report, presented at the recent annual meeting of the Association, the Committee again urged the importance of developing as a health measure every possible means of eliminating wastes and costs in the distribution of foods, of securing improved processes of distribution and marketing of cold storage foods and of educating the dealer and consumer as to proper methods of caring for cold storage products on removal from the warehouses and in the places of consumption.

### Public Kitchens

The Committee pointed out the effects of public national kitchens in England in improving the habits of the community in the matter of providing an adequate supply of food at low prices and wholesome food for working classes in place of makeshift meals. Such experience points to the need of radical modification of current practices in the domestic preparation of food with all its waste of labor, material and fuel, even when conducted by skilled workers. Such substitute methods as have been introduced in this country should have much more strict supervision from the hygienic point of view than has heretofore prevailed. Closer sanitary inspection of premises, utensils and processes and more rigid health examination of food handlers should be enforced in all factories engaged in the preparation of food and in all places where food is sold or served.

The Committee urged that home canning and preserving be resumed again in factories, where sanitary conditions may be enforced and where there may be a return to increasingly higher standards as to skill in technique, wages, hours and health of workers and hygienic environment. The development of methods of dehydration on a commercial basis was recommended.

The recommendations of the Committee do not imply giving up the preparation of food in the individual home whenever it can serve in the education of the young or conserve food which would otherwise go to waste, or be an actual pecuniary gain where the family income is so small as to permit of no free choice. It is assumed that the energy released from technical and mechanical processes shall not be squandered, but shall be directed toward meeting those responsibilities of the home—the care of the child, the social values of the home and the civic relationships of the family which assume new importance in the light of the tremendous changes which the world is undergoing.

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**Licenses for the export of coffee are under the jurisdiction of the War Trade Board and are not at present granted. The provisions of the Food Control Act are still in effect.**

# Does Degermination Destroy Corn Flavor and Value?

## This Article Gives the View Point of a Southern Corn Miller On This Much Debated Question

*By Richard P. Johnson*

ALL of us who have read that wonderful story of the conquest of an empire by the sturdy pioneers of our grandfather's days, as told by President Roosevelt, have been impressed by the ruggedness and strength of the men who carried on that great work.

No commissariats accompanied these bands; no bread kitchens were just behind the lines; chocolate and cigarettes were unknown,—but mile after mile were conquered and held. How was it done? An army lives on its belly—and the food furnished it must be of the best, or its work cannot be done. What was the food these men used? Corn, corn, and then more corn.

We have heard of wheatless days. Then every day was wheatless, but no complaint came from those men, women and children who crossed the mountains into the wilderness of the west. Why is it that in these times there was such wailing and gnashing of teeth when we were asked, for a little while, to forego the use of wheat?

### Less Corn Products

In a recent statement it was said that less corn products were used for human consumption in recent years than formerly, although populations had increased enormously and corn milling is said to have greatly improved. We have no way of knowing the correctness of this statement, but it is, we believe, a fact that most of the meal that is used is consumed south of the Ohio river and the folks north of the river only eat corn bread when they have to and not because they like it. This is all wrong and the fault lies either with the miller or with the housewife, the first because of the way the meal is made, and the second because of the way it is cooked.

In recent years there have been many refinements in corn milling. The tendency has been with many mills to put less and less of the corn into the meal and more of it into feed or by-products. In this process the germ or fat-bearing portions of the grain is taken out, and the meal is known as degerminated.

**In the South, Old Fashioned corn meal is still ground and sold and in the South there is far more corn meal consumed per capita than in the North. The corn is degerminated up North so that it will not spoil if kept for long periods before selling and so that it may be shipped long distances. The Southern millers who keep to the old method of preparing corn meal claim that there is certainly a loss of flavor and possibly a loss of food value in the degermination.**

**We are going to leave this matter entirely to the scientists and corn millers to discuss for a while and we invite communications from believers in each of the methods.**

The question has been raised as to whether or not such meal is as nutritious or as palatable as meal that contains more of the fat. To the lay mind it would seem that the meal which, as far as possible, contains all the nutritious qualities of the grain would be the most wholesome and palatable.

The arguments presented by those who favor only a degerminated and highly refined product seem predicated largely on a theory that meal with the fat left in it would spoil very quickly, and to their minds everything should give way to the keeping qualities.

Those, on the other hand, who favor a meal containing more of the fat content of the grain, take the position first that it is not definitely known that fat is the factor that causes deterioration in the meal; second, that with the fat left in, the meal is both more nutritious and more palatable, and, other things being equal, less costly.

Some rather interesting side lights on this question were brought out last winter when many of our boys from the north and west were first introduced to southern corn bread while camping in the cantonments in the south. Each Sunday the boys were invited to various homes and often corn bread in one form or another was served. It was a very usual expression to hear them exclaim on the deliciousness of this bread and to say that they had never tasted anything like it. No doubt some of these expressions were due to a feeling of politeness, but when one saw these sturdy sons of the north eating dodger after dodger of corn bread when there were many other things on the table, one could not help but feel that they liked it.

Their statements would be that the meal they were accustomed to did not have the taste that this had, and that if they could get corn bread like this in their homes they would be glad to have it, while under present conditions they only ate corn bread when they could not get anything else and that it was a punishment rather than a pleasure to use it.

### Food for Thought

This certainly should give the miller food for serious thought. Does the fault lie with him? Have the refinements in corn milling resulted in a beautifully white product, but one that has lost that rich nutty flavor that the meal has that is made from all the grain, except the bran or husk?

If mills in the South were to adopt this method of milling, will they find in a few years that their patronage among their home people is falling off, and will the present corn bread eater come gradually to the conclusion that it doesn't taste as good as it used to and go more and more into the use of wheat products?

Corn is king and by some means should be duly crowned by the American people.

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Credit another one to the dairy cow. The most effective glue yet discovered for fastening aeroplane parts has been made from milk.

# Unusual Food Facts and Phenomena

WHILE we can find no record of frappes, sundaes or other fancy hot weather comforters being used by ancients, we now know that ices are really a very old product. Even in Biblical days the people of Palestine appreciated snow at harvest time, and the idea of cooling drinks by means of snow first occurred to the Ancient Greeks, Jews and Romans. When snow was not available they put the drink into a porous earthen jar and cooled the contents by swinging in the air. In some parts of Spain and Turkey where snow can be obtained from the nearby mountains it still takes the place of ice for chilled drinks. The snow is saturated with water and packed down. After it has frozen into a slushy ice they use it for packing drinks and desserts to be chilled by allowing them to stand in the ice until cold.

Finally the Italians discovered that if saltpeter was added to the ice the liquid would freeze more solid. They next tried turning the dish containing the liquid while it stood packed in the ice, and they found it froze much more quickly. They then began to make frozen ices out of wine and fruit juices in the same way as we freeze creams and ices today.

Ices are still made in this way, in the Orient, but all ice cream must be shipped from the United States, for our country is the home of the ice cream industry.

When first discovered as a relishing dish the cream was known as butter ice, and then later as cream ice, as it is still called in England. Cream ice was first known in Paris in 1774. It is thought that the recipes for making water and milk ices were brought to Europe from Asia, by Marco Polo, who visited Japan in the 11th century.

### Ice Cream at Court

Cream ice is mentioned in an account of a banquet given by Charles I of England. It was made by a French cook named De Mireo. The king was so pleased with the "frozen milk," as it was first called, that he pensioned the cook with twenty pounds a year, provided he would keep the recipe a secret and make the dish for no one else. Well might Charles I have been called "the Selfish Glutton." Some historians, on the other hand, claim that the first dish of ice cream was set before Duc de Chartres in 1774 by his chef, who had depicted the Duque's coat-of-arms on the cream.

At an entertainment given by Louis XIV, a dessert resembling a freshly laid egg was served in silver gilt cups. At first the guests were so surprised at the strange dessert that they failed to touch it. Then some brave person discovered it was a delicious sweet-meat, hard and cold, and so was introduced to his honor, ice cream.

English cook books 150 years ago gave recipes for making ice cream, and a French cook, Clermont, in London, explained explicitly just how to make it.

It is not known definitely where ice cream was first made, but it is certain that it was the Germans who first showed the English how to mold ice cream into fancy shapes and molds such as we have today.

### The First Ice Cream Ad

The first advertisement of ice cream in this country appeared in the issue of the "Post Boy" on June 8, 1786, thus:

> **"Ladies and gentlemen may be supplied with ice cream every day at the City Tavern by their humble servant, Joseph Crane."**

A negro named Jackson, who had worked at the White House during Mrs. Hamilton's residence there, learned the recipe for making ice cream and started a confectionery, selling ice cream at $1.00 a quart. He always made excellent cream and consequently amassed a fortune before he died.

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## Profit from One Pig, $587

Ample proof that pig clubs pay is contained in reports being received continually by the United States Department of Agriculture from club leaders. One report recently received tells of the success of a Tennessee boy who, in May, 1918, invested $50 in a pure-bred gilt, and now figures his profits at $587.35. She farrowed seven pigs, part of which the boy sold for $133.

With this money he purchased a boar of excellent breeding, which he exhibited at the East Tennessee Division Fair, winning the grand championship of the breed over all exhibits. He won $87 in prizes, $45 of it in competition with experienced farmers. His animals are now valued at $525. This, with the money from sales and prize winnings, amounts to $745, from which he deducts $157.65 for feed and care, leaving a profit of $587.35.

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## Minnesota Leads in Homemade Bread

Bread like mother used to make is more plentiful in Minnesota than in any other state. At least Minnesota leads the nation in the production of homemade bread, according to reports based on the sale of yeast, say extension workers of the United States Department of Agriculture.

For many years Pennsylvania held this enviable record with Iowa third and Minnesota fifth, but five years ago bread making clubs were organized by the Federal and State extension forces throughout Minnesota. There have been about 16,000 boys and girls in these clubs each year, and every member has taken part in public demonstrations, and many have contested at the State fair. Three years ago Minnesota went into third place, and in 1918 she took the honor away from Pennsylvania by producing the greatest amount of homemade bread of any state in the Union.

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## We're Growing Our Own Figs

It is likely that before many years the 15,000,000 or 16,000,000 pounds of figs annually imported from Smyrna will be supplanted by the home grown product, says the United States Department of Agriculture in Bulletin 732, recently issued. The area in the southwestern states and in California is equally well adapted to the fig industry, the bulletin adds, as is the Meanier Valley in Asia Minor, and is more than extensive enough to produce many times the quantity imported into this country.

The annual production of Smyrna figs in California, which is almost the total yield of this country, is not far from 2,000 tons, but within a few years the production likely will be greatly increased, for it is estimated that since the importations were cut off as a result of the war 10,000 acres of Smyrna fig trees have been planted.

## The Airplane in Agriculture

In connection with scouting and other survey work in Texas, the United States Department of Agriculture is putting the airplane to its first practical application in agriculture. A try-out of this method of survey was made last year along the Trinity River and resulted in the discovery of several outlaw cotton fields in heavy timber, which had previously escaped detection. This year the airplane is to be used more extensively. It has been found a valuable aid in pink boll-worm work, as it makes possible the easy mapping, by means of photographs, of the quarantined territory, and facilitates the inspection work in forested areas, especially in such long stretches of country as the valley of the Rio Grande and its tributaries.

## Women for Fish Culture

Fish culture is one of the occupations the war has opened permanently to women, says a Washington (D. C.) report. The work means increasing the food supply and involves eight hours' out-door work each day, winter and summer.

"Employees must be in good physical condition," says the Chief Fish Culturist. "During the winter months there is a great deal of egg picking to be done. The workers can sit on stools to do this. At hatcheries equipped with batteries of jars, those in charge of the eggs necessarily must be on their feet much of the time. My opinion is that many women are well fitted to take entire charge of fish cultural work, to perform the duties of foremen, if they will go through the preliminary stages necessary to obtain practical experience."

Now that we are all guests at a common table, a single caterer—the Inter-Allied Food Council—by common consent, adjusts the fare.

## "Candy for Soldiers Shipped in Surplus Tin Cans"

THE War Department authorizes the following statement from the office of the Director of Purchase and Storage:

The signing of the armistice made surplus 6,000,000 cans which had been manufactured especially for shipping hard bread. The end of trench warfare eliminated the need of hard bread in tin cans, and so study had to be made as to the disposition of this large number of tins.

The Subsistence Division solved the problem by using the tins for shipping hard candies, and by supplying the cans 5 or 6 cents will be saved on each pound of candy purchased. The March requirements of hard candies totaled 1,800,000 pounds, the saving by supplying the cans being $90,000. There yet remain over 4,000,000 hard-bread cans to be used for candy, which in the next few months will result in the saving of $290,000 on candy to the government.

Due to the number of purchases of candy made for the army during the last three months, a complete system of inspection for all kinds of candy has been instituted by the Subsistence Division. The purchases during this period were in excess of 20,000,000 pounds. Analyses are being made of samples from all factories making candy for the army and checks are made against all deliveries, insuring a pure product for use of the troops. In addition to the analyses, orders have been issued that special investigations be made of all plants making candy for the army.

People who cease to fight do not cease to eat.

## How Cold Affected Citrus

Based upon a detailed survey by its Field Department covering all the citrus districts in Southern California, the California Fruit Growers' Exchange estimates that the shipments of citrus fruit for the season will be reduced about fifteen per cent by the several cold nights between Christmas and New Year's. The survey shows that unusual frost conditions prevailed and that the lower districts and low spots elsewhere suffered the most injury.

Lemons were injured more than oranges where the conditions were similar, but lemon orchards are more generally protected with heaters and a larger percentage of the season's crop has already been moved, also there are about 1,000 carloads of lemons in storage in the packing houses. The lemon damage is largely confined to the small fruit which would not have matured until summer or fall and the supply for the next several months will not be materially affected.

Beans and meat both furnish body-building material. Yet some housewives serve baked beans as a vegetable with meat and serve just as much meat as ever.

## Traded Relic For Lemon Pie

THE story of an American soldier's yearning for a good old-fashioned lemon pie and the way in which the American Red Cross in London satisfied him is told in a letter received recently from London.

A soldier wrote an "open letter" in which he offered to give a German officer's regimental badge which he had captured in action in exchange for a good old-fashioned lemon pie. The letter found its way to the Red Cross in London and immediately the culinary machinery of this great organization was put into operation and a pie produced that was designed to satisfy the demands of any American both in the matter of being old fashioned as to recipe and utterly desirable as to taste.

When the pie was finished the soldier was notified to bring his German badge and get it. He brought the badge and got the pie and then, leading a mouth-watering procession of other American Doughboys to a "Hut" frequented by soldiers of all nationalities, he kept the throng that gathered about him in a drooling condition while he decided whether he would divide it among Americans only or let the foreign soldiers have a taste of the greatest of American luxuries.

What his decision was is not told but the German badge hangs on the wall of the Red Cross Headquarters and will later go into the War Relic collection of this organization.

America's minimum food pledge is twenty million tons—Save Food. We have promised to feed the hungry millions of Europe—the allies and the liberated nations.—*U. S. Food Administration.*

## How Many Retail Grocers Are There?

Max Mayfield, a special representative of the Sugar Equalization Board, after a complete and apparently incisive and officially correct survey of the food trades of the country, has at last furnished the final statistics which have so long been guessed at, as to how many grocers there are. His business took him into every state, and in looking up the sugar certification plan he came into intimate touch with what are apparently facts on the subject. He places his statistical listing as follows: 375,361 retail grocers; 34,662 bakers, 121,393 hotels and eating places, 34,388 manufacturers of essential food products using sugar, 55,130 manufacturers of soft drinks and nonessential products containing sugar.

Mr. Mayfield does not state how many wholesalers there are—perhaps he could not, any more than anyone else, since the definitions of a "wholesaler" differ materially in the trade view—but his statement as to the retailers shows that the common guess of 350,000 is not far wrong.

## From a Calorie Standpoint Candy Rates High

HAVE you always looked upon candy as a luxury and something to be avoided except on gala occasions?

If you have it is high time to change your mind and give candy a place in your diet. For candy is a real food, a heat and energy producer and, as regards the calorie purchasing power of your money, is not much more costly. In some cases cheaper. It is not in itself a balanced food containing all the elements necessary to your well being, but like many other highly concentrated foods, it should be eaten in moderation.

The love of sugar is elemental with man as with most animals. The tiny bee and the burly grizzly alike go immense distances for a taste of honey and seem to thrive on it. The healthy "thirst" for sweets is rapidly supplanting the unhealthy thirst for certain other refreshments of ill repute, sworn enemies to the human system.

Says a writer in "Candy": "In the United States the candy business is getting its greatest impetus through the 'dry' movement. . . Whenever any locality goes dry, candy and ice cream stores move into the corners vacated by the saloon."

It's only natural. You see, we're at war with all that's baneful, and in this warfare, candy is our trusted ally.

An interesting table, prepared by the National Confectioners' Association, shows the following food values for different kinds of candy:

| | Calories per pound |
|---|---|
| Chocolate Nut Tablets | 2,860 |
| Cocoanut Bon Bons | 1,750 |
| Cocoanut Caramels | 1,675 |
| Cream Filberts | 1,913 |
| French Burnt Peanuts | 2,040 |
| Fudge | 1,587 |
| Gum Drops | 1,685 |
| Hard Boiled Candies | 1,587 |
| Jelly Beans | 1,708 |
| Lozenges | 1,795 |
| Marshmallows | 1,737 |
| Stick Candy | 1,745 |
| Sugar-Coated Jordan Almonds | 2,410 |
| Caramels | 1,451 |
| Chocolates—Cream Centers | 2,092 |
| Chocolates—Nut Centers | 2,498 |

Comparing these high food values with that of some of our common daily foods in the table below, it appears that with but three exceptions, candy is very much higher in food value than any of these:

| | Calories per pound |
|---|---|
| Whole Milk | 315 |
| Cream | 881 |
| Eggs | 695 |
| Beefsteak | 1,090 |
| Corn | 1,685 |
| Rice | 1,620 |
| White Bread | 1,180 |
| Corn Bread | 1,175 |

England, whose garrisons circle the world, long ago learned the value of candy as a fighting ally and has generously provided it for her soldiers. The army in France has eaten a "prodigious quantity" and the Australians in Egypt have consumed "all the chocolates in Cairo," according to the Westminster Gazette, while the canteen at the front "has five times the demand for sweets than was expected."

It's plain to see that candy is coming into its own. We're beginning to appreciate our once maligned food friend.

## Hail! King Apple

The apple is the king of fruits in value of crop as well as in the estimation of apple lovers. For the apple crop of 1918 a value of $230,000,000 has been estimated, or nearly three-eighths of the value of all fruits.

## Washington Fishery Laboratory

In the equipment of the fishery products laboratory at Washington, D. C., contracts have been awarded for a special experimental drier, carbondioxide refrigerating machinery, cork insulation of the freezing rooms, a hydraulic press, and various units of the chemical laboratory equipment. Emil Juel-Hansen, engineer for the Danish Freezing Company, of Aarhus, Denmark, is now in Washington superintending the provisional installation of the Ottesen freezing apparatus.

## Possible Value of Fur Seal Organs in Medicine

During a visit of the Commissioner of Fisheries to New York city recently, specimens of various organs of the Alaska fur seal were delivered to a well-known pharmaceutical house, following a conference with technical representatives of the firm. The organs will be submitted to laboratory tests for the purpose of determining whether they will yield useful extracts.

It would not be surprising to find that an animal with such remarkable habits and endurance as characterize the fur seal has developed in its pituitary, pineal, adrenal, pancreatic and other glands physiological properties that may be of great value in therapeutics.

If the laboratory report is favorable, the bureau will take steps hereafter to save all fur seal organs that can be economically utilized.

## An English Eel Farm

The first war time eel farm is owned by the Thames (England) Conservancy, who, not to be behind in patriotic endeavor, have purchased 300,000 elvers or eel spawn to replenish the Thames. Many other districts are following suit in order that this rich and nutritive food should yield its utmost during these lean times.

Elmore-on-Severn was the pre-war home of many German fish agents. It was their business to purchase young eels at small cost from local anglers, to dispatch them to Germany for fattening and then to resell Britain's own produce to Billingsgate fishmongers. A novel idea and one which repaid the German authorities who financed the scheme over and over again, as much as £200,000 a year being made out of it.

# Suggests Improvements in the Live Stock Industry

## Transportation, Stockyards and Selling Conditions are Discussed by One Who Has Had First Hand Experience

*By O. L. Bailey*

IN dealing with a subject which holds such an important place in our commercial life, and which is one of the foremost public needs, we must not lose sight of its magnitude and the great importance of dealing with it on a broad scale. Often we are influenced by our own personal opinions and are prone to view it only from our own standpoint. In which event we are unable to do the matter justice and the entire subject suffers. In order to present this great question properly, we wish to consider it from the following viewpoints:

First, Transportation.
Second, Stock Yards.
Third, Commission Merchants.

The matter of transportation is one of the greatest factors in the successful marketing of our live stock, as in most all other needs of our commercial life. In times past the railroads were inclined to look with disfavor on the handling of live stock, claiming it failed to produce the proper revenue. This condition was brought about from the enormous claims filed by the shipper for damages and loss in transit. The shipper was inclined to abuse the claim privilege, but at most times he was justified. Railroads would allow live stock, which is highly perishable, to stand on side tracks for hours in the burning sun and run other trains of dead freight around it; or leave it in the terminals for an unreasonable length of time before placing it at the stock yards for unloading. This was sure to prove disastrous and result in heavy claims.

### Shipper's Claims

When the shipper filed his claim, the railroads would invariably claim over-loading and were often successful in sustaining that point. The changing of the rate from per car to per hundred weight basis by practically all roads in the north and west has eliminated their loop hole there. The roads in the south have not awakened to this much-needed reform, but we see no good reason why they should not. No shipper should be allowed to crowd or overload his stock in order to save a few dollars in freight. We consider the adoption of this rule a great step towards the elimination of one of the evils practiced by the shippers of live stock and think it should become universal.

When stock dies, no matter from what cause, whether from over-loading, delays, extreme change in weather, etc., it is a total loss of food. The railroads can pay for the same at its full market value, but that does not replace the food value. What we need today is co-operation from all interests along these lines in order to reduce the great waste which has heretofore occurred.

The movement of live stock should be confined as much as possible to one train per day on each road, and have special attention given to these schedules, thus avoiding promiscuous arrivals at terminals. This would insure prompt switching and would, no doubt, eliminate the great delays experienced in terminals at the present time.

### A Great Need

One of the greatest needs in the transportation of live stock is the establishing by the railroads of a live stock department or superintendent of live stock. A man thoroughly familiar with the live stock business, one who knows the problems incident to the proper handling of this highly perishable commodity. If the railroads would establish such a bureau they would save enough from their claims to more than offset the increased expense. We believe a department to work along these lines with full authority would reduce the amount of claims filed under the present system at least fifty per cent during the first year and then the saving of food would be enormous. No doubt if live stock was handled as it should be the enormous amount of dead stock which enters our public yards annually could be reduced materially.

Stock yards, taken as a whole, are the best conducted public utilities with which we deal; however, certain conditions and practices are allowed to creep in which tend to cast reflection on the market. These conditions cannot be charged so much to the stock yard proper as to other individuals doing business on the stock yards. At times we are forced to criticise the action of the management, but no business escapes criticism. The yards have often been forced to suffer for the sins of others, as very few people know or make the distinction in the various classes of business usually carried on at the stock yards, considering it only from the standpoint of a stock yard. We do not wish to leave the impression that they are perfect, or that there is not plenty of work to be done in bringing them up to the high standard of efficiency which they so justly deserve.

No one can question the value of a centralized point where buyers and sellers can meet on a common basis and where the law of supply and demand shall govern all trades. The stock yards as now existing offers such a place, but they have grown to such an extent that it affords a serious problem in order to handle the live stock offered in the course of daily business. We believe that the time is not far distant when the stock yards will be placed in practically all cities having sufficient railroad facilities to handle the business. Several stock yards located in each state would be able to render better service.

### Clean Stock Yards

Stock yards should be kept as clean as possible so as to handle the business judiciously. This we find most yards willing and anxious to do. There should be sufficient facilities for loading and unloading promptly. Pen room should be adequate and the service rendered in

(Continued on page 38)

# FOOD NEWS FROM WASHINGTON

## Hoover Appoints Heads In Relief Work

Edgar Rickard and Theodore F. Whitmarsh of the U. S. Food Administration, who have been directing the affairs of the Food Administration during Herbert Hoover's absence in Europe, have been appointed by him joint directors in the United States of the American Relief Administration, which has been established by President Wilson to administer the $100,000,000 fund appropriated by Congress for European relief.

The executive order is as follows:

In pursuance of an act entitled "An Act for the relief of such populations in Europe, and countries contiguous thereto, outside of Germany, German-Austria, Hungary, Bulgaria, and Turkey, as may be determined upon by the president as necessary," approved February 24, 1919, I hereby direct that the furnishing of foodstuffs and other urgent supplies and the transportation, distributing and administration thereof, provided for in said act, shall be conducted under the direction of Herbert Hoover, who is hereby appointed director general of the American Relief Administration with full power to determine to which of the populations named in said act the supplies shall be furnished and in what quantities, and further to arrange for reimbursement so far as possible, as in said act provided. He is hereby authorized to establish the American Relief Administration for the purpose of carrying out the provisions of said act and to employ such persons and incur such expenses as may be necessary for such purpose, to disburse all sums appropriated under the aforesaid act of February 24, 1919, and appoint a disbursing officer with that power; and particularly to employ the Food Administration Grain Corporation, organized under the provisions of the Food Control Act of August 10, 1917, as an agency for the purpose of transportation and distribution of foodstuffs and supplies to the populations requiring relief. He is hereby further authorized in the carrying out of the aforesaid act of February 24, 1919, to contract with the Food Administration Grain Corporation or any other person or corporation, that such person or corporation shall carry stocks of food in transit to Europe, and at points in Europe, in such quantities as may be agreed upon and as are required to meet relief needs, and that there shall be paid to such person or corporation in advance from the appropriation made in the aforesaid act of February 24, 1919, any sums which may be required for the purchase and transportation of foodstuffs and the maintenance of stocks.

(Signed) Woodrow Wilson.

## Coffee Crop of the World

The world's coffee crop averages about 2,500,000,000 pounds a year, of which the United States consumes about 40 per cent. The value of the world's crop at the place of growth is about $300,000,000 per annum, and the value of the coffee imported into the United States averages a little more than $100,000,000 per annum; has averaged in the last five years about $113,000,000 per annum, the fiscal year 1918 having been $103,000,000, or slightly below the normal. The quantity imported into the United States is a little over one billion pounds, having averaged for the past five years 1,175,000,000 pounds per annum, though the 1918 figures fell slightly below this normal, having been 1,144,000,000 pounds.

## Increase in Cane and Sorghum Syrups

From ribbon cane, 36,730,000 gallons of syrup were made in the United States in 1918, according to the first estimate of this product by the Bureau of Crop Estimates of the United States Department of Agriculture. One-third of this was made in Louisiana, and below that state in order of production are Alabama, Georgia, Mississippi and Florida. In the census year 1909, the ribbon cane syrup made was 23,083,439 gallons. The 1918 output, therefore, shows an increase in nine years of 59 per cent. Only 13,000,000 gallons were made in the census year 1899.

Sorghum syrup also has increased greatly since the latest census year. The gain of 1918 was 46 per cent, and of 1917, a more favorable year for maturing the cane, 123 per cent. Sorghum syrup is one of the farm products that have declined and in recent years have "come back." The product of 1879 was about 28,400,000 gallons, of 1889 about 24,200,000 gallons, of 1899 about 17,000,000 gallons, and of 1909 about 16,500,000 gallons. The estimate for 1917 is 37,472,000 gallons and for 1918 it is 29,224,000 gallons.

These two cane syrups equalled 65,974,000 gallons in 1918, about 39,600,000 gallons in 1909, and about 30,200,000 gallons in 1899. Both are entirely consumed in this country. The war-time cry for more food and the sugar restrictions doubtless caused increased production of these nutritious, and when properly made, very palatable foods. It is likely that their utility and taste will prevent a relapse in their production after the world's food situation has become normal.

## Reports Food Survey of February 1, 1919

COMMERCIAL stocks of wheat reported in a survey made by the Department of Agriculture for February 1, 1919, amounted to 223,874,560 bushels. These holdings, reported by 11,529 firms—elevators, warehouses, grain mills, and wholesale dealers—were nearly three times as large as the stocks held by the same firms a year earlier, the actual percentage being 289.6 per cent of the 1918 stocks. The figures refer to stocks actually reported, and do not represent the total commercial stocks of the country, nor do they include stocks on farms.

### Visible Supply Figures Compared

The commercial visible supply figures, as published by the Chicago Board of Trade for February 1, 1919, show 130,613,000 bushels of wheat, as against 13,869,000 bushels a year ago. Corresponding Bradstreet figures show 140,607,000 bushels, as against 20,436,000 bushels for 1918. As compared with the same date of last year, these figures, as well as those obtained by the more extensive survey, show a very great relative increase in commercial stocks of wheat on February 1, 1919.

The commercial stocks of other cereals reported for February 1, 1919, according to the department statement, were as follows: Corn, 29,268,352 bushels; oats, 79,586,362 bushels; barley, 33,907,990 bushels; rye, 27,294,390 bushels. These stocks represent the following percentages of the corresponding stocks on February 1, 1918: Corn, 85.6 per cent; oats, 102.2 per cent; barley, 136.1 per cent; rye, 388.0 per cent.

The commercial stocks of flour and corn meal, as reported for the survey, were: Wheat flour, white, 6,454,299 barrels; whole wheat and graham flour, 132,271 barrels; barley flour, 136,293 barrels; rye flour, 351,000 barrels; corn flour, 31,330,981 pounds; corn meal, 68,307,963 pounds; buckwheat flour, 24,245,872 pounds; mixed flour, 41,035,694 pounds. These stocks represent the following percentages of the stocks on hand a year ago: Wheat flour, white, 153.8 per cent; whole wheat and graham flour, 134.0 per cent; barley flour, 209.0 per cent; rye flour, 181.4 per cent; corn flour, 663.5 per cent; corn meal, 161.3 per cent; buckwheat flour, 292.8 per cent; mixed flour, 353.7 per cent.

Elevators, warehouses, and wholesale dealers reported stocks of beans, amounting to 8,379,567 bushels, while wholesale grocers and warehouses reported the following commodities and in the quantities indicated: Rice,, 118,984,779 pounds; rolled oats, 76,638,575 pounds; canned salmon, 165,130,753 pounds; canned tomatoes, 281,337,772 pounds; canned corn, 132,298,176 pounds; sugar, 144,264,279 pounds. These stocks represent the following percentages of the corresponding stocks on hand February 1, 1918: Beans, 131.3 per cent; rice, 121.8 per cent; rolled oats, 156.5 per cent; canned salmon, 96.2 per cent; canned tomatoes, 176.7 per cent; canned corn, 157.4 per cent; sugar, 156.8 per cent.

Stocks of condensed and evaporated milk were reported by condensaries, cold storages, warehouses, and wholesale grocers as follows: Condensed milk, 30,935,879 pounds; evaporated milk, 93,817,562 pounds. The holdings of condensed milk reported for February 1, 1919, represented 130.0 per cent of the stocks held by the same firms a year earlier, while the holdings of evaporated milk represented 81.5 per cent of the February, 1918, stocks.

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## Bracken Resigns From Trade Commission

Leonidas L. Bracken, first secretary of the Federal Trade Commission, having been appointed to that post November 5, 1915, shortly after the commission's creation, has tendered his resignation, to become effective March 31st. The commission has accepted it.

Before his connection with the commission, Mr. Bracken practiced law in his native state, Indiana, leaving a practice of 13 years in Muncie to come to Washington. His resignation has been in the hands of the commission since December 23, 1918; but he has continued on at the request of the commission until the present time.

Mr. Bracken intends to return shortly to the active practice of his profession.

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The President has signed a proclamation, effective February 22, removing the requirement of licenses under the Food Control Act for persons, firms, corporations or associations engaged in the business of importation, manufacturing or distributing butter or eggs, or engaged in the business of operating cold storage warehouses.

## Ways of Producing More Fats and Oils

ONLY by the strictest economy and by substitutions ordinarily regarded as impossible has the world's supply of fats and oils been made to meet the requirements of the last few years, declares the United States Department of Agriculture in a publication just released. The Allied Nations barely were able to secure enough to meet their military and civil needs, while the greatest suffering in the Central Empires appears to have resulted from a dire shortage of fats and oils.

This was true during the war, and continues true in the reconstruction period notwithstanding the fact that the oil-producing possibilities, of America particularly, have never been utilized to anything like their full extent. To show the possibilities for oil production in greater quantities from recognized materials as well as from new materials and to demonstrate the possibilities of fuller utilization and conservation, the United States Department of Agriculture has issued, as Department Bulletin No. 769, a publication on "The Production and Conservation of Fats and Oils in the United States." The work was done in collaboration by Herbert S. Bailey, chemist in charge of the oil, fat, and wax laboratory of the Department of Agriculture, and B. E. Reuter, chief of the fats and oils division of the United States Food Administration.

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## The U. S. Council of National Defense Says

*"Buy Only What You Need, But Buy It Now"*

The re-employment of returning soldiers, sailors and marines is the patriotic duty of the whole people.

Industry cannot absorb these men and take care of men already employed, unless there is a demand for industrial products.

All commerce rests finally upon the individual purchases of the people.

When people buy, business is good; when people cease buying, industry slackens.

The nation is in a period of transition from a war to a peace basis—to make this transition quickly, it is necessary that the people of the United States understand the necessity of *buying what they need now.*

Hoarding is dangerous, so is waste.

Take the middle course.

*Buy now,* but buy carefully.

**U. S. Council of National Defense**

# DR. BARNARD'S VIEWS OF THE FOOD FIELD

## Beware the Promises of Spring Tonics

If you are at all observant you have noticed that some daily papers are now carrying more patent medicine ads than they did a few months ago. There are two reasons for this. Many newspapers cannot get over the notion that any money which comes to them for advertising is good money. The other is that the medicine men take a profitable advantage of the widespread notion that spring is the time to clean up the system as well as to clean house.

I have just read three advertisements in the window of a prominent drug store. One of them reads, "A spring tonic which purifies the blood. Of great benefit to those who are run down and for that tired feeling." Another is recommended "to improve the appetite; give tone to the system; build up certain run-down conditions and promote strength. An ideal spring tonic for old and young alike." The third was advertised as "A splendid tonic and system purifier. Just such a remedy as is needed for the human system at this season."

That is pretty suggestive advertising. Anyone who stops long enough to read the three recommendations unconsciously gets that "tired feeling" and if he is foolish enough he is apt to step inside and spend a dollar a bottle for one or perhaps all of these wonderful spring tonics.

What are the facts about them and about the other tonics, invigorators and blood purifiers that are being recommended so highly to drive away your lassitude and bring vigor after the weariness of winter? Let me tell you.

They are all alcoholic laxatives, more alcoholic than laxative. They usually contain about 18 per cent of alcohol, more than is found in most wine, and the recommended dose gives you a small cocktail. Those who know about cocktails know that they are invigorating temporarily. So are the spring tonics. That is all that can be said for them. The effect of the alcohol soon wears away, but a second dose out of the medicine bottles makes the spirit buoyant again just as a second cocktail does.

The difference between the patent medicine habit in which you take your alcohol disguised by bad tasting but hopelessly inert herbs and the liquor habit where you drink your spirits in a palatable form, is that in the one case you are a secret toper and in the other you are honest with yourself. Of all the drinking habits, the habit which is indulged by alcohol in the form of a spring tonic is the worst. It is expensive, it is digusting, it is useless. The system is not purified; the appetite is not improved; those who are run down are not benefited. The human system never needs drugs in the form of sarsaparilla, tonic reconstructors or nauseous medicines.

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## Food Flavors and Colors

We forget our friends, we forget our old associates—we never forget the smell of hot doughnuts. A subtle odor unknown for years will bring back instantly a host of pleasant memories.

Food without flavor is a necessary medicine, not a true food. The unfortunates who have lost their sense of taste and smell do not enjoy eating, and one of the greatest pleasures of life is denied them. Flowers call bees to their blossoms by the gaudy show of color and attractive perfumes. The same properties play an important role in our food. When the senses are stimulated by food the digestive operations go on better.

## Saccharin
## The Master Fraud

When a young chemist working at his laboratory at Johns Hopkins found that the new coal tar product he had made from toluene was intensely sweet, he did not know he had discovered a substance that in a few years would be perhaps the most notorious of food frauds.

The sweet substance was called saccharin. The name was most unwisely chosen. To most people the word saccharine means a sugary substance, and today the coal tar preparation when sold by name is popularly confused with sugar. It is not sugar. It has no food value. It is a drug. It also has a slight preservative action and when used in foods, as it frequently is in some states, it fulfills the double function of producing a sweet taste, thus satisfying the palate and of holding the goods from spoilage, thereby minimizing the necessity for careful preparation.

There is but one argument for its use in food stuffs,—it cheapens the cost of production. The manufacturer of soda waters, the highly colored pops that delight the eyes of the children, are put to little expense for raw material. The base of the beverage is carbonated water. This colored pink, yellow or brown as the case may be, sweetened and flavored. Sugar is the only expensive ingredient. When saccharin is substituted for sugar the cost is cut so low that the manufacturer may sell his imitation product at a profit and yet far below the cost of a legitimate beverage.

Some years ago I had occasion to prosecute many bottlers who were using saccharin as a sugar substitute. The cases were brought because the customer was cheated out of the sugar he thought he was getting when he put down his nickel for pop and because the use of saccharin made unfair competition possible and threw the soda water business into the hands of careless and reckless men who had little at stake and who were not concerned for the health of their patrons.

Saccharin is not only a fraud, it is a poison. The United States Department of Agriculture holds that it is not suitable for use in foods and has ruled that it may not be used even when declared upon the label.

When a new sweet substance is discovered which has real food value, which is non-injurious and which may cheapen the cost of living, I shall welcome it, but I am against saccharin—the master fraud.

## Good Food is the Best Medicine

THE right kind of food, rightly used, will cure disease more quickly than drugs. For years pellagra was a mysterious affliction. Neither its cause nor cure was known. Since the disease was most commonly found among the eaters of corn the theory that corn was its cause was generally accepted. The recent studies of the United States Public Health Service indicate that pellagra is not communicable and is caused by an unbalanced diet, consisting mainly of cereals, starches, and fats, with but very little of the animal flesh foods or milk. Therefore the disease may be prevented by a well-balanced diet, including sufficient quantities of milk, lean meat, beans, peas, and green vegetables. The same diet will cure cases of pellagra which are not too far advanced.

For the cure of pellagra the only medicine we have is the diet. The only use that medicines serve in pellagra is the alleviation of painful symptoms and in the treatment of complicating conditions. The sooner this is realized the sooner will the quacks, both within and without the profession, be put out of business. The money that is now being wasted on useless and quack medicines is well nigh sufficient to procure for the poor deluded sufferers the food from the lack of which they are suffering.

Undernourished children are not good pupils. Their undernourishment may be the result of lack of food or of a lack of knowledge of food values on the part of their parents.

## Safe Meat for City Folk

"GO to the city for health," is the new adage. Studies of health conditions in the country have made an amazing change in our ideas of healthful living. We used to think children grew thin and pale in town; strong and healthy on the farm. Not so, the sturdiest children are city bred. This is not bare assertion, the facts are before me.

We used to go back home to the farm for good food; today the best of all country produce is sent to the city market, the cull, inferior stock stays at home. This is particularly true of the meat supply. The Federal government has had charge of all meat shipped between the states for many years, and through its Bureau of Animal Industry, carefully inspects every piece of meat and meat product that is sold outside the state in which it is killed. Last year approximately one animal was slaughtered for every one of us and of the 100,000,000 almost sixty per cent were killed and prepared for food in establishments where Federal inspectors are stationed. We have no record of the forty per cent killed on the farm or by local butchers. We hope most of that great meat supply was sound and healthy, but the facts destroy our optimism.

The Federal inspectors condemned a little more than one and one-half per cent of all the animals examined either in whole or in part. That means that 900,000 carcasses or parts of carcasses were condemned in a single year. When we remember that only the best stock is sent to the abbatoirs under Federal inspection, are we afraid to think of the conditions of the meat that is sold uninspected?

Tuberculosis, the scourge of man, is also the enemy of beasts and more than 30,000 carcasses of cattle and 60,000 carcasses of swine were entirely rejected on account of this disease, and in addition parts of 48,000 cattle and nearly half a million swine went into the discard.

Hog cholera was responsible for the next largest loss—over a hundred thousand swine being condemned for this cause. This inspection is costly but the figures I have given prove its value in excluding diseased meat from the markets and in protecting us from possible meat born disease. The meat inspection service cost last year about $3,375,000, or between five and six cents an animal. In this cost, however, is included the cost of reinspection of very large quantities of meat products, and in normal years to millions of pounds of imported meats.

The mark of government inspection which appears on every piece of meat that is sound and edible is an oval, purple stamp, bearing the words, "U. S. Inspected and Passed." Look for it on your roast. If it's there the meat is sound, if it is not there, make very particular inquiry as to where the meat came from. If it has passed the scrutiny of competent city or state officials all right, it's safe, but if it is of unknown origin you may be sure it is not the kind of meat your family ought to eat.

The pleasant thought for city folk is that almost all U. S. inspected meat comes to their markets and that the small quantity of locally killed stock is subject to the scrutiny of efficient health officials.

## Make the Punishment Fit the Crime

A TEN dollar fine for selling watered milk is light punishment and the confiscation of a wagonload of bad milk will not stop the production of poor milk if but one load out of ten that is marketed is seized.

They did some things better five hundred years ago than now. The penalty for selling watered milk in France in the fourteenth century read as follows:— "A funnel shall be placed in the mouth of any man or woman convicted of having sold watered milk, and the said watered milk shall be poured into the funnel until such time as the doctor shall declare that the culprit cannot be made to swallow any more without danger of death." The seller of impure butter was put in the pillory, "when the butter shall be crushed upon his head, and shall there remain until the sun shall have melted it."

If we could impose such penalties as these they would have a greater corrective influence than fines or confiscation. Many a law violator may be shamed into obedience by scathing publicity.

## Speaking of Friends

Dave Lewis begs to notify that he has started business on his own hook as an up-to-date restaurant (fish every day), and he hopes that his many friends will darn well stop away and give him a chance.—Queensland, Australia, Newspaper.

# MARCH

| Average Price per Pound | Average Price per 100 Calories | | Lima, Ohio (Typical Small Town) | New York, N. Y. | Buffalo, N. Y. | Trenton, N. J. | Providence, R. I. | Boston, Mass. | Philadelphia, Pa. | Pittsburgh, Pa. | Washington, D. C. | Columbus, Ohio | Richmond, Va. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CEREAL PRODUCTS— | | | | | | | | | | | |
| $0.06 | $ 0.37 | Wheat flour, standard, 49-lb. bag | $3.15 | $3.00 | $3.00 | $3.40 | $2.85 | $3.43 | $3.20 | $3.20 | $3.30 | $3.00 | $1.55 |
| .09 | .57 | Rye flour, standard, 24½-lb. bag | 1.65 | 1.50 | 1.68 | 1.70 | 1.32 | 1.70 | 1.80 | ... | ... | 1.70 | ... |
| .07 | .43 | Graham flour, 10-lb. bag | .70 | .80 | .70 | .75 | .45 | .50 | .80 | 1.00 | ... | .72 | .80 |
| .11 | .67 | Cornstarch, per lb | .12½ | .09 | .11 | .12 | .10 | .09 | .10 | .10 | .08 | .10 | .10 |
| .06 | .37 | Corn flour, 5-lb. bag | .35 | .45 | .31 | .30 | .25 | .35 | .35 | .35 | ... | .30 | ... |
| .05 | .30 | Cornmeal, per lb | .06 | .07 | .06 | .06 | .05 | .05 | .06 | .06 | .05 | .05 | .06 |
| .07 | .42 | Barley flour, per lb | .07 | .08 | .06½ | .07 | .06 | .07½ | .10 | .10 | .05 | .05 | ... |
| .08 | .44 | Oatmeal, per lb | .12 | .08 | .07½ | .07½ | .07 | .07 | .08 | .08 | .08 | .07 | .09 |
| .07 | .39 | Oats, rolled, bulk, per lb | .09 | .07 | .06 | .07½ | .06 | .05½ | .08 | .07 | .07 | .07 | ... |
| .12 | .73 | Rice flour, per lb | .10 | ... | .20 | .06 | .10 | .12 | .12 | .15 | ... | .10 | ... |
| .11 | .69 | Buckwheat flour, per lb | .10 | .10 | .09½ | .10 | .07 | .10 | .11 | .12½ | .08 | .08 | .10 |
| .08 | .49 | Hominy grits, per lb | .12 | .08 | .15 | .09 | .07 | .06 | .10 | .08 | .07 | .07 | .08 |
| .10 | .55 | Quaker Oats, 1 lb. 4 oz | .13 | .11 | .12 | .12 | .10 | .11 | .14 | .12 | .12 | .11 | .12 |
| .13 | .88 | Rice, fancy, head, per lb | .15 | .11 | .16 | .15 | .12 | .13 | .16 | .12½ | .15 | .10 | .15 |
| .12 | .74 | Barley, pearled, per lb | .15 | .06 | .06 | .08 | .06 | .06 | .10 | .07 | .10 | .15 | .15 |
| .09 | .76 | Bread, per lb | .10 | .10 | .09 | .10 | .08 | .07½ | .09 | .10 | .08 | .10 | .10 |
| .23 | 1.21 | Crackers, graham, per lb | .22 | .17 | .21 | .25 | .20 | .22 | .25 | .23 | ... | .10 | .25 |
| .23 | 1.19 | Crackers, oatmeal, per lb | .22 | .17 | .21 | .25 | .20 | .30 | .25 | .23 | ... | .17 | ... |
| .14 | .86 | Macaroni, per lb | .15 | .16 | .14 | .24 | .10 | .15 | .18 | .18 | .20 | .15 | ... |
| | | SUGAR AND SYRUP— | | | | | | | | | | | |
| .10 | .55 | Granulated sugar, per lb | .11 | .09½ | .10½ | .10½ | .10 | .10 | .10 | .10 | .10 | .11 | .10½ |
| .08 | .56 | Corn syrup, 10-lb. pail | .85 | ... | .75 | .90 | .75 | ... | .90 | .85 | .79 | 1.00 | .90 |
| .37 | 2.50 | Comb honey, per lb | .45 | .25 | .40 | .45 | .45 | .50 | .40 | .40 | .50 | .40 | ... |
| | | FATS— | | | | | | | | | | | |
| .58 | 2.45 | Bacon, sliced, per lb | .65 | .45 | .60 | .65 | .55 | .50 | .50 | .50 | .50 | .50 | .45 |
| .62 | 1.77 | Creamery butter, fancy, per lb | .62 | .64 | .57 | .75 | .52 | .56 | .70 | .63 | .65 | .62 | .58 |
| .33 | .78 | Pure leaf lard, per lb | .32 | .35 | .32 | .35 | .30 | .30 | .30 | .32 | ... | .30 | .35 |
| .38 | 1.11 | Oleomargarine, uncolored, per lb | .41 | .42 | .40 | .40 | .38 | .35 | .40 | .38 | .35 | .37 | .39 |
| .36 | 1.02 | Nut Margarine, uncolored, per lb | .37 | .33 | .34 | .35 | .33 | .32 | .38 | .34 | .33 | .35 | .35 |
| 1.02 | 2.55 | Italian or Spanish olive oil, per qt. tin | 2.00 | 1.10 | 1.39 | 1.50 | 2.10 | 2.50 | 2.00 | 2.00 | 1.50 | 1.65 | 2.00 |
| .38 | .95 | Cottonseed oil, per qt. tin | .85 | .35 | .80 | .70 | .75 | .75 | .75 | .65 | .70 | .75 | .75 |
| .38 | .95 | Corn oil, per qt. tin | .90 | ... | .75 | .70 | .70 | .79 | .75 | .80 | .65 | .65 | .80 |
| .49 | 1.22 | Peanut oil, per qt. tin | .90 | ... | 1.00 | 1.00 | ... | .75 | 1.00 | 1.35 | ... | .90 | ... |
| .28 | 1.02 | Peanut butter, per lb | .30 | ... | .25 | .30 | .25 | .19 | .35 | .25 | .25 | .28 | .50 |
| | | FRUITS— | | | | | | | | | | | |
| .21 | 1.59 | Evaporated apples, per lb | .20 | .20 | .24 | .25 | .20 | .22 | .22 | .25 | .25 | .18 | .20 |
| .23 | 1.91 | Evaporated peaches, per lb | .25 | .22 | .25 | .25 | .28 | .20 | .25 | .25 | .20 | .22 | .30 |
| .17 | 8.09 | Canned peaches, No. 2½ stand., 1 lb. 13 oz | .35 | .30 | .31 | .35 | .31 | .30 | .40 | .25 | .35 | .30 | .35 |
| .17 | 2.42 | Canned pineapples, No. 2½ stand., 1 lb. 14 oz | .45 | .38 | .32 | .45 | .29 | .35 | .40 | .40 | .30 | .30 | .40 |
| .15 | .96 | Raisins, seeded, per pkg. 15 oz | .18 | .15 | .15 | .16 | .15 | .15 | .15 | .17 | .15 | .15 | .15 |
| .21 | 1.81 | Prunes, medium sized, per lb | .25 | .16 | .18 | .23 | .20 | .16 | .25 | .20 | .23 | .20 | .30 |
| | | VEGETABLES— | | | | | | | | | | | |
| .03 | 1.00 | White potatoes, per lb | .03 | .07 | .02½ | .03 | .02 | .03 | .03 | .03 | .03 | .04 | .03 |
| .08 | 1.77 | Sweet potatoes, per lb | .12 | .08 | .10 | .12 | .08 | .12 | .07 | .10 | .10 | .08 | .08 |
| .05 | 2.50 | Onions, per lb | .05 | .05 | .04 | .05 | .04 | .05 | .02½ | .05 | .07 | .05 | .10 |
| .12 | .76 | Navy beans, dry, per lb | .10 | .10 | .12 | .10 | .10 | .10 | .13 | .12½ | .12 | .09 | .13 |
| .16 | 17.77 | String beans, cnd., No. 2, stand., 1 lb. 3 oz | .20 | .15 | .19 | .31 | .16 | .16 | .20 | .20 | .20 | .16 | .25 |
| .15 | 3.49 | Corn, canned, No. 2, stand., 1 lb. 4 oz | .15 | .15 | .18 | .25 | .20 | .16 | .20 | .15 | .20 | .15 | .20 |
| .16 | 6.40 | Peas, canned, No. 2, stand., 1 lb. 4 oz | .18 | .15 | .17 | .25 | .20 | .16 | .20 | .18 | .20 | .15 | .20 |
| .15 | .93 | Split peas, per lb | .15 | .10 | .15 | .18 | .11 | .12 | .16 | .14 | .15 | .15 | .15 |
| .23 | 1.24 | Peanuts, unshelled, per lb | ... | ... | .40 | .15 | ... | .25 | .25 | ... | .16 | .30 | .20 |
| .10 | 10.00 | Tomatoes, canned, No. 3, stand., 2 lb. 1 oz | .25 | .17 | .25 | .25 | .22 | .19 | .22 | .22 | .20 | .20 | .18 |
| .04 | 3.33 | Cabbage, per lb | .05 | .04 | .03½ | .08 | .03 | .04 | .04 | .08 | .08 | .08 | .05 |
| .04 | 2.35 | Beets, per lb | .05 | .04 | .05 | .05 | .02 | .04 | .03 | .04 | ... | .03 | ... |
| .04 | 2.22 | Turnips, per lb | .05 | .03 | .03½ | .04 | .03 | .03 | .02 | .05 | .01 | .03 | ... |
| | | MEATS AND FISH— | | | | | | | | | | | |
| .38 | 6.00 | Beef, round steak, per lb | .40 | .40 | .38 | .50 | .50 | .55 | .50 | .40 | .40 | .35 | .40 |
| .44 | 8.00 | Veal cutlets, per lb | .40 | .60 | .44 | .60 | .50 | .65 | .55 | .55 | .50 | .40 | .50 |
| .36 | 4.13 | Leg of mutton, per lb | .40 | .32 | ... | .40 | .35 | .35 | .35 | .45 | .35 | .30 | .40 |
| .40 | 4.76 | Leg of lamb, per lb | .45 | .44 | .36 | .40 | .42 | .40 | .45 | .45 | .45 | .40 | .40 |
| .38 | 3.09 | Pork chops, per lb | .40 | .35 | .40 | .38 | .38 | .40 | .40 | .35 | .40 | .35 | .35 |
| .56 | 2.94 | Ham, sliced, medium fat, per lb | .60 | .50 | .70 | .60 | .60 | .60 | .60 | .60 | .50 | .55 | .50 |
| .48 | 16.81 | Chickens, broilers, per lb | .50 | .55 | .50 | .55 | .42 | .42 | .60 | .48 | .55 | .42 | .40 |
| .29 | 8.02 | Salt cod, per lb | .30 | .40 | .25 | .35 | .16 | .18 | .30 | .18 | .25 | .30 | ... |
| .29 | 2.90 | Salt mackerel, per lb | .30 | .35 | .35 | .30 | .22 | .35 | .35 | .35 | .30 | .30 | .20 |
| .33 | 7.33 | Halibut, per lb | .35 | .45 | .32 | .50 | .28 | .35 | .40 | .40 | .40 | .40 | ... |
| .35 | 5.47 | Salmon, per lb | .35 | .45 | .35 | .60 | .28 | .40 | .40 | .40 | .40 | .40 | ... |
| .30 | 4.54 | Salmon, canned, No. 1 Red Alaska, 1 lb | .35 | ... | .30 | .30 | .30 | .28 | .32 | .30 | .25 | .25 | .20 |
| .34 | 9.19 | Trout, per lb | .35 | .35 | .24 | ... | ... | .75 | .20 | .40 | .15 | .35 | .25 |
| .25 | 7.81 | Whitefish, per lb | .35 | .35 | .24 | ... | .08 | .30 | ... | .30 | .25 | .35 | ... |
| | | MISCELLANEOUS— | | | | | | | | | | | |
| .35 | 1.55 | Cocoa, bulk, per lb | .25 | .25 | .25 | .45 | .30 | .30 | .35 | .25 | .30 | .35 | ... |
| .30 | 5.00 | Eggs, fresh gathered, firsts, per doz | .42 | .55 | .55 | .58 | .70 | .62 | .50 | .50 | .50 | .45 | .48 |
| .06 | 1.93 | Milk, per qt | .13 | .12 | .15 | .15 | .17 | .16 | .13 | .15 | .18 | .15 | .15 |
| .41 | 1.97 | Cheese, American, cheddar, per lb | .42 | .42 | .40 | .45 | .35 | .38 | .40 | .45 | .45 | .45 | .45 |

# PRICES 1919

| Atlanta, Ga. | Montgomery, Ala. | Nashville, Tenn. | New Orleans, La. | Lexington, Ky. | Chicago, Ill. | Des Moines, Ia. | Indianapolis, Ind. | Topeka, Kan. | Raleigh, N. C. | Columbia, S. C. | Detroit, Mich. | St. Paul, Minn. | Madison, Wis. | Fargo, N. D. | Tucson, Ariz. | Denver, Colo. | Salt Lake City, U. | Portland, Ore. | Reno, Nev. | Berkeley, Cal. | Los Angeles, Cal. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $3.30 | $1.68 | $1.55 | $3.43 | $3.39 | $2.90 | $3.20 | $ ... | $2.85 | $3.25 | $3.15 | $3.00 | $3.00 | $2.90 | $3.00 | $3.05 | $2.85 | $2.70 | $2.75 | $3.50 | $3.28 | $ ... |
| ... | ... | 1.60 | 1.68 | ... | 1.45 | 1.70 | ... | 1.45 | ... | .. | 1.25 | 1.60 | 1.45 | ... | ... | 1.50 | 1.65 | 1.70 | ... | ... | 1.44 |
| .90 | 1.28 | .70 | 1.00 | .90 | .65 | .80 | ... | .75 | .85 | .75 | .75 | .65 | .65 | .70 | .80 | .55 | .65 | .65 | .75 | .70 | .68 |
| .10 | .12 | .08 | .10 | .15 | .10 | .10 | .12½ | .10 | .15 | .10 | .12 | .12 | .10 | .10 | .15 | .13 | .12½ | .11 | .14 | .13 | .11 |
| ... | .45 | .25 | .35 | ... | .30 | ... | .06 | .30 | ... | .. | .25 | .35 | .28 | ... | ... | .25 | ... | ... | .40 | ... | ... |
| .05 | .05½ | .05 | .05 | .05 | .05 | .06 | .06 | .05 | .06 | .05 | .06 | .07 | .05 | .06½ | .07½ | .05 | .07½ | .06½ | .07½ | .07 | .07 |
| ... | ... | .12 | .07½ | .15 | .05 | ... | ... | .05 | ... | .. | .05 | .07 | .06 | ... | ... | .05 | ... | .08 | .08 | ... | ... |
| .10 | .13 | .05 | .12 | .15 | .10 | .03½ | .09 | ... | ... | .. | .06 | .10 | .06 | .15 | .07 | .08 | .10 | .08 | .11½ | .08 | .10 |
| .10 | ... | .12 | .07 | ... | .08 | .03½ | .. | .07 | ... | .10 | .06 | .08 | .06 | ... | .07 | .08 | .10 | .08 | .09 | .08 | .08 |
| .12½ | .. | .10 | .12 | .20 | .12 | ... | ... | .10 | ... | .. | .15 | .12½ | .09 | .10 | .12½ | .11 | ... | .10 | .12 | .11 | ... |
| .12½ | .10 | .12 | .15 | .15 | .10 | .10 | .12 | .11 | .10 | .11 | .08 | .10 | .09 | .11 | ... | .12 | .15 | .11 | .13 | .12½ | .13 |
| .05½ | .06 | .05 | .05 | .20 | .07 | .07½ | .. | .10 | .09 | .05½ | .08 | .10 | .12 | ... | .15 | .13 | ... | .08 | ... | .07 | .07 |
| .12 | .13 | .12 | .12 | .15 | .13 | .15 | .14 | .15 | .15 | .15 | .12 | .12½ | .15 | .15 | .15 | .15 | .15 | .15 | .15 | .14 | .13 |
| .12½ | .12½ | .12 | .12 | .15 | .13 | .12½ | .14 | .15 | .15 | .15 | .11 | .15 | .12 | .14 | .15 | .15 | .15 | .12½ | .15 | .15 | .15 |
| .15 | .17 | .12 | .10 | .20 | .12 | .10 | .09 | .10 | ... | .15 | .08 | .15 | .15 | .15 | .25 | .15 | .15 | .10 | .12 | .12 | .12 |
| .10 | .10 | .10 | .06½ | .10 | .10 | .10 | .09 | .10 | .10 | .08 | .07 | .08 | .09 | .09 | .10 | .08 | ... | .10 | .10 | .09 | .07 |
| .20 | .34 | .20 | .20 | .30 | .22 | .25 | .22 | .20 | ... | .25 | .20 | .25 | .20 | .22 | ... | .23 | .40 | .23 | .25 | .25 | .20 |
| .20 | .25 | .20 | .20 | .40 | .22 | .25 | .22 | .20 | ... | .25 | .20 | .25 | .20 | .22 | ... | .25 | .40 | .23 | .25 | .25 | .20 |
| .10 | .16 | .08 | .12 | .20 | .15 | .12 | .19 | .15 | .15 | .20 | .08 | .12½ | .08 | .20 | ... | .10 | .15 | .12½ | .12 | .11 | .12½ |
| .11 | .11 | .10 | .10½ | .11 | .10½ | .11 | .11 | .11 | .11 | .10½ | .10½ | .11 | .11 | .11 | .11½ | .11½ | .11 | .10 | .11 | .11 | .10 |
| .79 | .97 | .75 | .75 | .95 | .75 | .90 | ... | .85 | .90 | .85 | .75 | .85 | .80 | 1.00 | 1.00 | .50 | 1.00 | .95 | 1.05 | 1.10 | .40 |
| ... | .25 | .40 | .30 | .40 | .43 | .40 | .35 | .35 | .25 | .. | .40 | .38 | .38 | ... | .37½ | .35 | .35 | .35 | .30 | .30 | .25 |
| .55 | .55 | .55 | .60 | .60 | .58 | .55 | .50 | .60 | .65 | .70 | .55 | .55 | ... | .50 | .80 | .65 | .65 | .55 | .70 | .75 | .67½ |
| .70 | .65 | .58 | .55 | ... | .61 | .62 | .57 | .55 | .65 | .61 | .61 | .57 | .54 | .54 | .70 | .60 | .60 | .65 | .68 | .65 | .68 |
| .28 | .33 | .33 | .33 | .35 | .33 | .35 | .33 | .35 | .37½ | .35 | .30 | .33 | .28 | .35 | ... | .30 | ... | .33 | .35 | .34 | .25 |
| .38 | .40 | .35 | .38 | .40 | .38 | .40 | .35 | .40 | .41 | .45 | .35 | .40 | .38 | .35 | ... | .40 | .40 | .38 | .42 | .35 | .41 |
| .35 | .40 | .38 | .38 | .40 | .35 | .35 | ... | .35 | .45 | .45 | .35 | .35 | .33 | .35 | ... | .35 | .40 | .36 | ... | .35 | .35 |
| ... | ... | 2.00 | 1.75 | 2.20 | 1.75 | ... | 1.65 | 1.75 | ... | 3.00 | 2.00 | 1.50 | ... | 2.00 | ... | 2.00 | 2.40 | 2.75 | 1.65 | 2.35 | 2.30 |
| .75 | ... | .70 | .50 | .75 | .70 | ... | .83 | .95 | .73 | .90 | .85 | .75 | .65 | ... | 1.00 | .85 | .95 | .75 | .65 | .50 | .60 |
| .75 | ... | .65 | .75 | .65 | .70 | .75 | .69 | .85 | ... | .85 | .75 | .75 | .65 | .80 | .85 | .75 | ... | .75 | .80 | .72 | .65 |
| .75 | ... | ... | .65 | ... | .75 | ... | 1.25 | ... | .73 | .80 | 1.50 | ... | ... | ... | ... | .80 | ... | ... | ... | ... | 1.08 |
| .30 | .35 | .30 | .25 | .30 | .25 | .25 | .25 | .25 | ... | .40 | .30 | .25 | .22 | ... | ... | .30 | .30 | .22½ | .30 | .28 | .25 |
| .17½ | .23 | .15 | .20 | .20 | .25 | ... | ... | .15 | .20 | .20 | .18 | .25 | ... | ... | .25 | .25 | .20 | .17 | .20 | .30 | .22 |
| .25 | .28 | .18 | .25 | .25 | .22 | .25 | .25 | .20 | .25 | .25 | .20 | .20 | .25 | .22 | .25 | .30 | .17½ | .20 | .15 | .15 | .24 |
| .35 | .34 | .35 | .25 | .40 | .35 | .30 | .45 | .40 | .25 | .35 | .28 | .30 | .30 | .20 | .40 | .25 | .25 | .32 | .25 | .30 | .30 |
| .35 | .28 | .40 | .30 | .35 | .35 | .40 | .45 | .40 | .35 | .40 | .40 | .30 | .30 | .25 | .30 | .35 | .30 | .30 | .30 | .35 | .26 |
| .17 | .17 | .15 | .16 | .17 | .15 | .15 | .17 | .17 | .20 | .18 | .15 | .15 | .15 | .15 | .20 | .18 | .15 | .14 | .15 | .15 | .14 |
| .20 | .29 | .12½ | .25 | .25 | .20 | .20 | .25 | .17½ | .25 | .25 | .20 | .18 | .20 | .20 | .25 | .20 | .17½ | .16 | .20 | .12 | .22½ |
| .04 | .04 | .03 | .04 | .04 | .02½ | .03 | .03 | .02½ | .04 | .04 | .02 | .02 | .02½ | .02 | .03 | .02 | .02 | .02 | .02 | .03½ | .03 |
| .04 | .03 | .04 | .05 | .02½ | .10 | .10 | ... | .06 | .05 | .05 | .10 | .12 | .08 | .12 | .10 | .10 | .08 | .07½ | .08½ | .06 | .04 |
| .05 | .05 | .03 | .05 | .05 | .06 | .04 | ... | .04 | .05 | .05 | .04 | .04 | .03 | .05 | .04 | .05 | .06 | .03 | .04 | .05 | .05 |
| .12½ | .15 | .10 | .15 | .17 | .12½ | .12½ | .12 | .12½ | .20 | .18 | .09 | .12½ | .10 | .12 | .15 | .13 | .12½ | .10 | .12 | .10 | .11 |
| .20 | .30 | .18 | .20 | .25 | .20 | .20 | .29 | .25 | .20 | .25 | .20 | .18 | .20 | .18 | .22½ | .20 | .20 | .20 | .15 | .15 | .20 |
| .20 | .20 | .15 | .18 | .20 | .20 | .15 | .18 | .20 | .25 | .20 | .20 | .18 | .15 | .15 | .20 | .20 | .20 | .20 | .20 | .19 | .25 |
| .20 | .25 | .15 | .15 | .30 | .20 | .12½ | .15 | .20 | .35 | .25 | .20 | .18 | .15 | .18 | .25 | .20 | .20 | .30 | .20 | .20 | .24 |
| .15 | .15 | .15 | .20 | ... | .14 | .17½ | .25 | ... | ... | .20 | .15 | .15 | .15 | .18 | ... | .15 | .14 | .10 | .14 | .12 | .13 |
| ... | .08 | .15 | .40 | ... | .25 | .20 | ... | .25 | ... | .. | .25 | .20 | .20 | .28 | ... | .25 | .25 | .20 | .25 | .25 | .20 |
| .22 | .20 | .18 | .20 | .20 | .22 | .20 | .25 | .20 | .25 | .23 | .25 | .18 | .22 | .25 | .25 | .25 | .20 | .16 | .20 | .17 | .17 |
| .06 | .05 | .03 | .03 | .04 | .04 | .05 | .05 | .05 | .06 | .05 | .06 | .03 | .05 | .05 | .07½ | .05 | .05 | .04 | .04 | .02 | .01½ |
| .07½ | .. | .05 | ... | ... | .03 | .05 | ... | .03 | ... | .. | .04 | .03 | .04 | .04 | .08 | .03 | .05 | ... | .03 | .02 | ... |
| .04 | ... | .03 | .05 | .03 | .04 | .05 | ... | .02 | ... | .06 | .07 | .03 | .04 | .04 | .08 | .03 | .05 | .07½ | .02½ | .02 | ... |
| .35 | .35 | .35 | .40 | .40 | .40 | .35 | .35 | .45 | .40 | .45 | .35 | .35 | .30 | .38 | .35 | .35 | .30 | .30 | .32 | .35 | .30 |
| .35 | .40 | .40 | .45 | .50 | .35 | .35 | .40 | .40 | .40 | .55 | .50 | .35 | .30 | .35 | .45 | .40 | .40 | .33 | .40 | .40 | .48 |
| .50 | .45 | .30 | .37 | .50 | .32 | ... | ... | .35 | .40 | .45 | .36 | .35 | .30 | .30 | .45 | .35 | .27½ | .30 | .28 | .35 | .35 |
| .60 | .45 | .35 | .42 | .50 | .38 | ... | .45 | .40 | .40 | .40 | .36 | .38 | .32 | .35 | ... | .40 | .35 | .35 | .35 | .40 | .35 |
| .35 | .40 | .30 | .45 | .40 | .35 | .30 | .35 | .30 | .40 | .55 | .38 | .33 | .33 | .35 | .50 | .35 | .40 | .36 | .40 | .40 | .45 |
| .50 | .55 | .40 | .55 | .60 | .55 | .50 | .60 | .60 | .50 | .65 | .58 | .50 | .55 | .50 | .55 | .60 | .60 | .45 | .60 | .60 | .60 |
| .50 | .45 | .70 | .40 | .60 | .38 | ... | ... | .45 | .45 | .40 | .38 | .38 | .40 | .35 | ... | .40 | .45 | .45 | .60 | .70 | .75 |
| ... | .40 | ... | .25 | .30 | .30 | .35 | .35 | .35 | .25 | .40 | .30 | .35 | ... | ... | .25 | .15 | .50 | .22½ | .. | .23 | .25 |
| .40 | .20 | ... | .20 | .25 | .25 | .35 | .30 | .30 | .25 | .. | .30 | .20 | ... | ... | .17½ | .30 | .45 | .18 | ... | .45 | .30 |
| ... | ... | ... | ... | .35 | .32 | .30 | ... | .30 | ... | .30 | .30 | .33 | .25 | .32 | ... | .35 | .35 | .30 | .40 | .42 | .28 |
| ... | ... | ... | ... | .25 | .30 | .20 | .65 | .30 | ... | .45 | .30 | .33 | .25 | .32 | ... | .35 | .40 | .35 | .42 | .45 | .15 |
| .30 | .35 | .19 | .25 | .35 | .33 | .40 | .33 | .30 | .35 | .. | .35 | .30 | ... | ... | .30 | .35 | .30 | .15 | ... | .30 | .31 |
| .25 | .25 | ... | .20 | .35 | .30 | .40 | ... | ... | .25 | .. | .25 | ... | .25 | ... | ... | .40 | .60 | ... | .30 | .75 | ... |
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| .20 | .20 | .10 | .15 | .18 | .15 | .15 | .13 | .13 | .19 | .25 | .15 | .13 | .12 | .13 | ... | .13 | .12 | .13½ | .12 | .14 | ... |
| .40 | .40 | .29 | .40 | .45 | .42 | .40 | .49 | .40 | .45 | .40 | .40 | .38 | .35 | .30 | .50 | .45 | .35 | .40 | .45 | .48 | .41 |

# Food Control Officials' Conventions

THE next annual convention of the Association of the American Dairy, Food and Drug Officials will be held in New York City September 8-13. The headquarters will be at the New Commodore Hotel, 42nd street directly across from the Grand Central Station.

This decision was arrived at by the Executive committee which met in New York in February, after the Merchants Association had brought to the committee's attention some of the great problems which are now before manufacturers and distributors and which they thought the official's association could assist in solving by holding the convention at this place. The unusual courtesies and accommodations offered by the new Commodore hotel also assisted in arriving at a decision.

For the first time in the history of this organization city food officials will be admitted to this convention in accordance with a rule recently adopted.

The meeting was presided over by President Benjamin L. Purcell of Virginia. In attendance were Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, Washington; Dr. J. S. Abbott, of the Bureau of Chemistry, Washington; George L. Flanders of New York, James Foust of Pennsylvania; Frank B. Jackson of Rhode Island; Dr. F. J. Blank of Maryland, and Secretary John B. Newman of Chicago.

## Central Atlantic States Convention

THE third annual convention of the Central Atlantic States Dairy Food and Drug Officials Association will be held in Philadelphia at the Adelphia Hotel on March 21 and 22. This meeting will bring together many of the most prominent of the authorities on food matters and the discussions will be of great value to everyone in the food official world and in the food industry. A full report of this convention will be published in the next issue of THE AMERICAN FOOD JOURNAL. The program will be as follows:

### Morning Session, 11 a m., Friday, March 21

### Reports of Committees

Oysters Committee—W. W. Randall, chief, Bureau of Chemistry, Maryland department of Health, chairman.

Discussion by A. Stengel, chief, Philadelphia Station, Bureau of Chemistry, U. S. Department of Agriculture, and Talbot Reed, health officer, Atlantic City, N. J.

Milk Committee—W. G. Tice, chief chemist, New Jersey Department of Health, chairman.

Discussion by Marion B. Hopkins, chief, Bureau of Food and Dairy Inspection, Baltimore, Md.

Address—B. L. Purcell, dairy and food commissioner of Virginia, and president of the Association of American Dairy, Food and Drug Officials.

Municipal Food Control—Its Purpose and Scope, by Charles V. Craster, health officer, Newark, N. J., and J. A. Vogelson, chief, Bureau of Health, Philadelphia, Pa.

Discussion by J. C. McNeil, superintendent, Bureau of Inspection, Department of Health, Pittsburgh, Pa., and C. H. Wells, State Board of Health, Wilmington, Del.

### Bottled Sodas (Soda Water, Soft Drinks)

Administrative Problems — James Foust, Pennsylvania Dairy and Food Commissioner.

Chemical Problems—Charles H. La Wall, chemist, Pennsylvania Dairy and Food Department.

The Sanitary Production of Bottled Sodas—W. W. Skinner, chemist in charge, Water Laboratory, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.

Discussion by S. W. Bateson, Department of Health, Buffalo, N. Y., and O. Salthe, Department of Health, New York City.

### Committee Reports

Unification of Inspection Methods—H. H. Wagner, chief inspector, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York City, chairman.

Organization and Administration—J. S. Abbott, office of co-operation, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C., chairman.

### Evening Session, 8 p. m., Friday

This session will be devoted to a round table discussion of any problems of interest to the members of the association.

### Morning Session, 9:30 a. m., Saturday Committee Reports

Food Economics—B. R. Hart, chief, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York City, chairman.

Collation and Dissemination of Information Pertaining to the Enforcement of Food and Drug Laws—W. C. Burnet, office of co-operation, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C., chairman.

Food Sanitation in Relation to Production, Manufacture, Handling and Storing—William C. Fowler, health officer, District of Columbia.

Discussion by R. B. Fits-Randolph, assistant director, New Jersey Department of Health; Eugene H. Porter, New York State Commissioner of Foods and Markets; Charles V. Craster, health officer, Newark, N. J., and Roy K. Flannagan, health officer, Richmond, Va.

### Frozen Eggs Control

Chemistry and Bacteriology—Methods of Analysis—H. W. Redfield, bacteriologist in charge inspection microbiology, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.

Discussion by W. G. Tice, chief, Bureau of Foods and Drugs, New Jersey State Department of Health.

Shell Egg Control—Mary E. Pennington, Chief Food Research Laboratory, Bureau of Chemistry, U. S. Department of Agriculture, Philadelphia, Pa.

Comprehensive Co-operative Plan of Egg Control—B. R. Hart, chief, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York City.

### Hotel Headquarters

The Hotel Adelphia has again consented to furnish this association a convention hall free of charge. As the city is crowded, it would be safer to ask for reservations of rooms sufficiently far in advance to insure obtaining them without an effort.

## South Central State Convention

The third annual convention of the Food, Feed and Drug Officials of the South Central States will be held at New Orleans April 2 and 3. The program follows:

### Morning Session, Wednesday, Apr. 2

Address of Welcome by Hon. Martin Behrman, Mayor of New Orleans.—Response by J. W. Duke, Commissioner of Health of Oklahoma.—President's Address by W. F. Hand, State Chemist of Mississippi.—Reports of Committees.—General Discussion.

Dairy and Dairy Products, by J. M. Moore, Food, Feed and Drug Clerk of Alabama. — General Discussion. — Proper Control of Milk Products, by Eugene Kelly, Dairy Division, U. S. Department of Agriculture., Discussion by F. A. Mantel, Chemist, Department of Health, Memphis, Tenn.—General Discussion.

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Shell Egg Control in the South by Harry L. Eskew, Food and Drug Commissioner of Tennessee.—Discussion by C. L. Clay, State Analyst of Louisiana.

### Afternoon Session, Wednesday

Reports of Committees:

Conservation of Feeds, by J. W. Sample, State Chemist of Tennessee, Chairman.—General Discussion.—Feeds and Fertilizers, by B. B. Ross, State Chemist of Alabama.—General Discussion.

Value of Factory Inspection of Cotton Oil Mills by R. F. Smith, Federal Food and Drug Inspector.—Discussion by W. R. M. Wharton, Chief, St. Louis Station, Bureau of Chemistry, U. S. Department of Agriculture.—General Discussion.

Necessity for Definitions and Standards for Cotton Seed and Rice Products: J. W. Sample, State Chemist of Tennessee.—Discussion: J. M. Moore, Food, Feed and Drug Clerk of Alabama.—General Discussion.

Control of Mixed Feeds Containing Low-Grade Feeding Stuffs: G. S. Fraps, State Chemist of Texas.—Discussion: A. J. Hargrave, Feed Inspector of Oklahoma; J. D. Turner, Feeding Stuffs Director of Kentucky.—General Discussion.

A Federal Feeding Stuffs Law—Principles Upon Which it Should Be Based: Harry D. Wilson, Commissioner of Agriculture and Immigration of Louisiana.—Discussion: B. B. Ross, State Chemist of Alabama; J. G. Ferguson, Commissioner of Mines, Manufacture and Agriculture of Arkansas.—General Discussion.

### Morning Session, Thursday

Reports of Committees:

Foods and Drugs, by J. O. LaBach, Director of Laboratories of Kentucky.—General Discussion: Sanitation, by C. W. Garrison, Health Officer of Arkansas.—General Discussion.

The Problems of Production and Control of the Sea Food of the Gulf of Mexico and Tributary Waters, by M. L. Alexander, Commissioner, Department of Conservation of Louisiana, and President of American Fisheries Society.—Discussion: J. Asakiah Williams, Shellfish Commissioner of Florida; W. G. Sterrett, Game, Fish and Oyster Commissioner of Texas; Mary E. Pennington, Chief, Food Research Laboratory, Bureau of Chemistry, U. S. Department of Agriculture.—General Discussion.

Address on the Sea Food Industry of the Mississippi Coast—W. S. Leathers, Executive Officer, Mississippi State Board of Health.

The Food and Drug Commissioners of the Gulf Coast States are respectfully requested to collate all the data they have on the composition of oysters grown in their respective states. This data will then be published for the information of the members of the Association.

### Afternoon Session, Thursday

Address by B. L. Purcell, Commissioner of Agriculture and Immigration of Virginia, and President of the Association of American Dairy, Food and Drug Officials.—C. L. Alsberg, Chief, or W. G. Campbell, Assistant Chief, Bureau of Chemistry, U. S. Department of Agriculture.—Drug Control in the South States by Oscar Dowling, President, State Board of Health of Louisiana.—Discussion: L. A. Brown, Drug Chemist, Kentucky Agricultural Experiment Station; A. T. McCormick, Health Officer of Kentucky.—General Discussion.

Sanitation in Relation to Restaurants, Hotels and Food Factories: W. H. Robin, Health Officer of New Orleans.—Discussion: F. J. Hoge, Chief Sanitary Inspector, Chattanooga, Tenn.; H. F. Magee. Health Officer, Jackson, Miss.—General Discussion.

Fountain Sodas and Bottled Sodas Control: R. H. Hoffman, Food and Drug Commissioner of Texas.—Discussion: P. H. Scardino, Health Officer, Houston, Tex.; Chas. A. Mohr, Health Officer, Mobile, Ala.—General Discussion. — The Production of Bottled Sodas, by W. W. Skinner, Chemist in Charge Water Laboratory, Bureau of Chemistry, U. S. Department of Agriculture.

The Function of Municipalities in Food and Milk Control: W. W. Battle, City Chemist, Dallas, Tex.; Herman Spitz, Bacteriologist, Nashville, Tenn.—General Discussion.

## Southeastern States Convention

The second annual convention of the South Eastern States Food and Drug Officials Association will be held in Jacksonville, Florida, March 27 and 28. The following is the program:

### Morning Session, Thursday, Mar. 27

Address of Welcome: L. M. Rhodes, Commissioner, Florida State Marketing Bureau, Jacksonville, Fla. — President's Address: R. E. Rose, State Chemist, Tallahassee, Fla. Addresses by C. L. Alsberb, Chief, or W. G. Campbell, Assistant Chief, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C., and Benjamin L. Purcell, Dairy and Food Commissioner, Richmond, Va., and President of the Association of American Dairy, Food and Drug Officials.

Perfection of Permanent Organization and Election of Officers.

Cooperation — A Comprehensive Plan Between City, State and Federal Officials: H. H. Wagner, Chief Inspector, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York, N. Y. Discussion: W. C. Dumas, State Chemist, Atlanta, Ga.

### Afternoon Session, Thursday, Mar. 27

Address by J. J. Brown, Commissioner of Agriculture, Atlanta, Ga. — Sanitary Problems and Control of Drinking and Bottled Waters, by R. C. Werner, State Board of Health, Atlanta, Ga.—Sanitation in Bottling Works—Suggestions for a Proper Control, by Samuel H. Wilson, Assistant State Chemist, Atlanta, Ga.

Shell Eggs—Control Problems, by B. R. Hart, Chief, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York, N. Y.—Egg Substitutes,

Continued to page 42

# Laws Proposed in State Legislatures

Continued From February Number

### Alabama

Senate Bill No. 29 seeks to amend the prohibition law by including in the prohibited list all liquors, liquids, drinks, or beverages made in imitation or intended as substitutes for beer, ale, rum, gin, whiskey or other alcoholic, vinous, spirituous or malt liquors. This bill has passed both houses.

Senate Bill No. 181 is a long commercial feeding stuffs bill.

House Bill No. 322 is identical with Senate Bill 181. It has passed the House.

### Arizona

House Bill No. 98 is a pure advertising bill.

### Arkansas

Senate Bill No. 18 seeks to amend the very stringent existing prohibition law by excepting certain things from the list of prohibited articles. It has passed both houses.

House Bill No. 29, is the same as Senate Bill No. 18.

House Bill No. 49 is another amendment to the prohibition law. It has passed the House.

Senate Bill No. 318 is an act to establish a standard of weights and measures for corn meal, grits, hominy and corn flour and for other purposes. It fixes standard weights at one, two, three, four, five, fifty, and one hundred pounds. Labels or tags must state contents and net weight.

### California

Senate Bill No. 25 is a commercial feed stuffs bill.

Senate Bill No. 93 the same subject.

House Bill No. 172 seeks to amend the Net Contents Law.

House Bill No. 172 is a pure advertising bill.

House Bill No. 212 seeks to amend the law relative to the use of the Babcock Test in the purchase of milk and cream.

Senate Bill 390 is a very stringent prohibition bill which seems to include in the list of prohibited articles all beverages that contain alcohol and would include flavoring extracts.

Senate Bill No. 435 would require all bread to be labeled showing the material of which it is made.

Senate Bill No. 459 seeks to amend the existing law by prohibiting the use of oleomargarine or cheese not made wholly from pure milk in any institution that receives assistance from the state.

House Bill No. 480 relates to the labeling of feeding stuffs.

Senate Bill No. 482 would require that the name and address of canner be "permanently imprinted" on the flat side of all cans of fish or other sea foods canned in the state.

House Bill No. 534 would require condensed compounds of vegetable oil and milk to be colored so as not to look like milk. It fixes the edible content and provides for license for manufacture or sale.

Senate Bill No. 513 would stipulate the standards for containers or packages of various fruits.

House Bill No. 540 would amend the weights and measures law.

House Bill No. 594 would create a Bureau of Food Administration to regulate food prices, curb profiteering, etc.

Senate Bill No. 596 would amend the milk pasteurization law.

House Bill No. 851 is a counterpart of Senate Bill No. 596.

House Bill No. 792 is practically the same as Senate Bill No. 435.

House Bill No. 917 would create a state market commission to receive from producers of agricultural and fishery products and sell same on a commission.

House Bill No. 949 would provide for inspection and licensing of tomato canneries.

### Colorado

House Bill No. 304 reported in last month's list has passed the House and been referred to the Senate committee on Agriculture.

Senate Bill No. 331 seeks to amend the Food and Drug act and among other provisions it would give the State Board of Health power to fix standards "which shall be in substantial conformity with standards established by the Bureau of Chemistry of the U. S. Department of Agriculture".

Senate Bill No. 405 would create the office of State Food and Drug Commissioner and give him the power now held by the State Board of Health to enforce the food and drug laws.

House Bill No. 424 is the same as Senate Bill No. 405.

Senate Bill No. 429 is substantially the same as House Bill No. 424.

House Bill No. 513 would declare the business of producing poultry and eggs, milk, cream and their by-products to be public utilities and to be subject to the Public Utilities laws.

House Bill No. 522 is practically the same as Senate Bill No. 331.

### Connecticut

———— Bill introduced by Morris to amend the milk and cream law. Number not ascertained.

House Bill No. 201 seeks to amend the Oleomargarine law.

House Bill No. 215 is a prohibition bill and defines "spirituous and intoxicating liquors as follows: "The phrase spirituous and intoxicating liquors wherever used in this act or in the general statutes of the state shall be constructed to include any distilled malt, spirituous, vinous, fermented or alcoholic liquors and all alcoholic liquids whether proprietary, patented or not, which are potable or capable of being used as beverages."

House Bill No. 307 also seeks to define intoxicating liquors.

House Bill No. 308 defines temperance beverages.

Senate Bill No. 314 relates to grading of apples.

House Bill No. 463 relates to the possession of intoxicating liquors.

Senate Bill No. 472 would provide for state registration of trade marks.

Senate Bill No. 508 would repeal the law relating to the sale of cold storage eggs.

Senate Bill No. 515 would fix milk standards at not over 88½ percent water fluid and not less than 11½ percent milk solids.

House Bill No. 618 is an ice cream regulation that would include in the list of adulterations ice cream if "it shall contain boric acid, formaldehyde, saccharin, or any other added substance or compound that is deleterious to health" also "if it shall contain any deleterious flavoring matter or flavoring matter not true to name."

### Delaware

House Bill No. 117 is a prohibition bill with a definition of intoxicating liquors that includes practically all potable liquids having one-half of one percent alcohol. In another section exception is made to flavoring extracts to be used for "cooking or culinary purposes".

House Bill No. —— would make

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### Illinois

Senate Bill No. 130 is an act to restrict the manufacture, possession and use of intoxicating liquors in prohibition territory.

House Bill No. ——is identical with Senate Bill No. 130. The definition of intoxicating liquor in both of these bills would include all flavoring extracts made with alcohol.

### Idaho

House Bill No. 60 would amend the law relative to the promotion of creameries, condenseries, sugar factories, etc.

House Bill No. 146 would prohibit the sale of any "compounds or mixtures designated to be or capable of being taken internally, which contains in excess of 2 percent alcohol.

House Bill No. 171 is a cold storage bill.

House Bill No. 172 defines intoxicating liquors and seems to include in the definition flavoring extracts containing any alcohol, patent medicines not sufficiently medicated, etc.

### Iowa

Senate Bill No. 178 would amend the dairy laws and provides that any preparation of evaporated milk containing any fat other than milk fat shall be labeled "imitation evaporated milk."

Senate Bill No. 184 would amend the bill relative to the shipment of milk to hospitals.

Senate Bill No. 195 would amend the prohibition law relative to the shipment of intoxicating liquors.

House Bill No. 198 is similar to Senate Bill No. 178.

Senate Bill No. 205 seeks to define and regulate the sale of process or renovated butter.

House Bill No. 222 would amend the weights and standards law by giving to the Food Commissioner power to fix standards "in conformity with the United States standards. It would also change the regulations in regard to misbranding.

Senate Bill No. 250 would amend the law relating to sanitation in food producing establishments by requiring the securing of a license from the State Dairy and Food Commission and would give power to this commission to withhold license from any applicant deemed unworthy.

Senate Bill No. 254 is an exact duplicate of House Bill No. 222.

Senate Bill No. 276 is a weights and measures bill.

House Bill No. 279 would amend the existing weights and measures law.

### Kansas

Senate Bill No. 295 is an act to prevent discrimination and unfair trade practices.

House Bill No. 307 would impose a tax of 10c per ton on all feeding stuffs, by-products of starch factories, glucose factories, cereal breakfast food factories, breweries, distilleries, meat packing establishments and slaughter houses.

House Bill No. 345 is an act to prevent discrimination and unfair trade practices by buying at higher rates or selling at lower rates in one section than in another after making allowances for difference in shipping rates.

### Maine

House Bill No. 112 is an amendment to the pure milk bill.

House Bill No. 117 is an amendment to the law relating to the handling and sale of milk.

House Bill No. 118 is an amendment to the law relating to unclean milk and cream containers.

### Massachusetts

House Bill No. 31 is an act stipulating the methods of cleaning glasses, cups, etc., wherever beverages, ice cream, etc., are sold.

House Bill No. 277 is an amendment repealing any and all inconsistencies in the Food and Drug Act.

House Bill No. 798 is an amendment to the law relative to the sale of food of the carcasses of calves and lowers the weight from 60 to 40 pounds as necessary before slaughtering.

House Bill No. 1149 would amend the law relative to the duties of members of the Boards of Health acting as inspectors of slaughtering.

House Bill No. 1150 is an amendment to the cold storage law which does not materially change the provisions of the law.

House Bill No. 1233 is an act to compel marking of candy or confectionery which has been in cold storage as "Cold Storage Candy or Confectionery" when placed on sale.

House Bill No. 1234 is an act requiring a physical examination to be made of all persons employed in the handling of food.

House Bill No. 1322 is an act requiring licensing of persons manufacturing or selling soft drinks and also specifies that no sweetening be used in soft drinks except pure cane or pure beet sugar and that the amount of sugar in each beverage shall be not less than 8 per cent. It also provides that if any artificial coal tar colors be used that they shall be only such color as are specified by the United States Department of Agriculture and any vegetable color used must be approved by the State Department of Health.

### Michigan

Senate Bill No. 16 is a bill to prohibit the employment of persons afflicted with venereal disease in places where food or drink are manufactured, prepared, served or sold.

Senate Bill No. 122 is an act to fix the standard of ice cream providing that it shall contain not less than 10 per cent butter fat except when served with fruits or nuts when it shall contain not less than 8 per cent milk fat. It further prohibits the use of boric acid, formaldehyde, saccharine or any other added substance that is deleterious to health.

House Bill No. 149 is a bill to regulate the sale of eggs held in cold storage or artificially preserved.

House Bill No. 245 is an amendment to the prohibition law and seeks to strike out the exceptions in that law which exclude flavoring extracts and certain medicines from the list of prohibited articles.

House Bill No. 261 would increase the license taxes for soft drink manufacturers.

### Minnesota

Senate Bill No. 46 is a weights and measures bill, said to be identical with House Bill No. 41, reported in last month's issue.

Senate Bill No. 419 is a bill relating to the licensing of vendors of non-alcoholic drinks.

House bill No. 659 is identical with Senate Bill No. 419.

### Missouri

Senate Bill No. 301 is a stringent prohibition bill.

Senate Bill No. 316 would create the office of State Beverage Inspector.

House Bill No. 466 is the same as Senate Bill No. 316.

House Bill No. 721 would place a license tax of $50 per year on manufacturers of ice cream who sell at wholesale and $25 on those who sell only at retail.

House Bill No. 756 is an act to control the manufacture or preparation of frozen, liquid, dessicated or any other forms of whole eggs, yolks,

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whites or any mixture of yolks or whites for food purposes.

Senate Bill No. 583. This bill purports to be an amendment to the existing non-alcoholic drink law but it contains clauses that would forbid the use of boric acid or borates, salicylic or sulphids, saccharin, glucin and other ingredients deleterious to health. It also has a clause forbidding sale by one manufacturer of any food in a container on which is printed the name of any other manufacturer.

### Montana

Senate Bill No. 87 is an amendment to the prohibition law apparently intended to exclude flavoring extracts from the prohibited list. It has passed the Senate.

Senate Bill No. 91 is an amendment to the prohibition law defining intoxicating liquors and apparently would include certain flavoring extracts on the prohibited list.

Senate Bill No. 198 provides for the licensing of firms or persons doing business in the state and provides for the canceling of such license in the case of violation of the state Trade Commission which may fix the minimum price on articles of merchandise.

Senate Bill No. 201 is an act against discrimination in prices in different parts of the state.

House Bill No. 232 would give municipalities the right through the council to prohibit the sale of intoxicating liquors.

House Bill No. 430 authorizes the manufacture and sale of fermented malt liquors containing not more than three-tenths of one per cent alcohol.

### Nebraska

House Bill No. 282 would amend the law relative to the production and sale of condensed milk.

House Bill No. 405 amends the definition of "misbranded articles."

House Bill No. 440 provides against price discrimination.

House Bill No. 476 would reenact the Food and Drug law, changing some of the provisions to accord with the Federal requirements.

### New Jersey

Senate Bill No. 33. Is an act to regulate the production and distribution of dairy products, and would create a State Dairy Commissioner which would have power to fix prices and regulate the industry generally.

### New Mexico

House Bill No. 260. Is a prohibition bill. It does not contain a clause exempting flavors and extracts containing alcohol from the prohibition list.

### New York

House Bill No. 760. Would amend the law relating to the analysis and sale of concentrated commercial feed products.

Senate Bill No. 399. Is a stringent prohibition bill and from the wording would seem not to exclude flavoring extracts from the prohibited list.

House Bill No. 574. Is the same as Senate Bill No. 399.

### North Carolina

House Bill No. 378. Provides for a tax on the manufacture of all soft drinks, extracts and compounds for soft drinks.

Senate Bill No. 344. Would forbid the use of any but sanitary paper cups or saucers or any but wooden or paper spoons in serving ice cream or soft drinks and forbids of use of said cups, saucers or spoons more than once.

House Bill No. 523. Fixes a license fee for peddlers and retail venders including dispensers of soda water and soft drinks. It also places a tax on manufacturers or bottlers of soft drinks.

House Bill No. 765. Is a prohibition bill which includes in its definition of intoxicating liquors all liquids containing alcohol and capable of being used as a drink. It also would give final powers of determination of the character of the liquid to the Secretary of the State Board of Pharmacy, the Professor of Pharmacology of the State Medical College and the Professor of Chemistry of the State University.

House Bill No. 785 would regulate the retail sale of flavoring extracts, perfumes, etc.

### North Dakota

Senate Bill No. 202. Would place a tax of five cents for each fifty dollars or fraction thereof order for goods and merchandise solicited in this state by traveling sales persons. It also would place a tax of one cent for each ten cents or fraction thereof of the amount paid for soft drink beverages.

### Ohio

House Bill No. 24. This is a prohibition bill. It has been amended by the House Committee since its introduction in such a way that it will be necessary for all who sell flavoring extracts, perfumes, etc., to apply for a permit to the commissioner who will have full power to grant or refuse such permit or to cancel permit at his own discretion.

House Bill No. 225 is a bill to amend the law so as to permit flavoring extracts or soda flavoring to be labeled the same as provided for by the National Pure Food Law.

### Oklahoma

House Bill No. 313 would add to the prohibition bill definition of intoxicating liquors by including "all other liquors, medicines or compounds by whatever name called, that will produce intoxication," in the list of prohibited beverages.

### South Carolina

House Bill No. 189 would prohibit the sale of compounds, extracts, etc., containing more than 1 per cent of alcohol except on physician's prescription or if for culinary purposes, on written order of the housewife by whom it is to be used.

Senate Bill No. 199 is practically the same as House Bill No. 189 and also would compel a strict book record on the part of persons, firms or corporations of sales and names of persons to who sold.

House Bill No. 378 would levy a tax of 50 cents a gallon on all "compounds, mixtures and ingredients imported into the state for the manufacture of soft drinks and a tax of 3 cents a bottle on all bottled goods imported into the state. Tax to be paid by the person or firm receiving these goods.

House Bill No. 360 is a substitute for House Bill No. 189 and prohibits sale of compounds, extracts, etc., unless sufficiently medicated so that they cannot be used as a beverage.

### South Dakota

House Bill No. 127. This is an amendment to the prohibition law and contains a clause which would seem to include extracts, etc., in the prohibited list. It has passed the House.

### Tennessee

Senate Bill No. 351 would amend the law relating to commercial feeding stuffs so as to permit the use of peanut hulls or shells.

House Bill No. 354 is a cold storage bill.

Senate Bill No. 560 is a cold storage bill.

### Texas

House Bill No. 259 would place a tax on soft drinks and syrups sold in the state or shipped into the state for sale.

House Bill No. 260 would levy a tax of $25 upon persons, firms, associations or corporations selling soft drinks.

### Utah

House Bill No. 137 is a very stringent prohibition bill, apparently prohibits sale of Jamaica Ginger.

(Continued on page 44)

# Dehydrated Vegetables

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
INCORPORATED
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U. S. A.

# Chemical Parsons Cut Cost of Living

CHEMICAL parsons, although aristocrats of the laboratory and expensive retainers, are cutting down the cost of living for mankind, says a bulletin issued by the American Chemical Society.

With their aid, it may be possible one of these days to get something very much like beefsteak from the air, just as now with the assistance of these true friends of the race, excellent butter substitutes are made from oils. To explore the atmosphere for such products as the lowly kine have given us, is one of the achievements of modern industrial chemistry which may yet make useful to us even "the cow that jumped over the moon."

A chemical parson, to use the lingo of the laboratory, is a substance which brings about radical changes without being in the least changed itself. One of the best known of them is the metal, nickel, which is now largely employed in producing valuable substitutes for butter.

Mr. Paul Escher, a member of the American Chemical Society and a chemist connected with one of the large Chicago packing houses, says that few realize the extent to which hardened oils are now taking the place of solid fats and butter.

"The ever-increasing population and the continuous decreasing ratio of milch cows in the world have made it necessary to supplement the supply of natural butter by vegetable oils and fats so blended as to resemble butter. The little country of Holland, where this industry has reached a very high state of perfection, has for years been supplying Europe with 'margarine, the better grades of which are difficult to distinguish from the natural product. The oleo oil used in this industry is derived from beef fat and it has become so scarce that a number of semi-solid vegetable fats like cocoanut oil and shea nut oil have been drawn into use. In order to make them resemble butter the more, they are put through a hardening process, technically known as hydrogenation.

This is done by heating the oil and bubbling through it a pure hydrogen gas in the presence of a "chemical parson" or catalyzer. The parson employed in this case is finely divided metallic nickel.

As the hydrogen passes through under pressure, the oil takes up some of the gas and in so doing it changes its internal structure and becomes in cooling a solid, hard fat. In this way it is possible to produce cocoanut oil butter or shea nut butter which can be made into prints under ordinary temperatures. Lard may also be made so solid that it can be sold in pound packs without the need of a container. Highly refined cottonseed oil, peanut oil, corn oil, and the oil from the Chinese soya bean or fish oil and cheap grades of vegetable oil can all be converted into a more or less solid fat by this magic process, the degree of hardness depending on the length of the process. These preparations are sold under very appetizing and often fanciful names and seem popular with the public, especially as they cost little more than half as much as butter.

The metallic nickel which is required is carefully prepared by special processes and is so fine that it cannot be seen by the naked eye, when it is mixed with the hot oil. If a very active, catalyzer or chemical parson is required, one pound of the metal is present in one thousand pounds of oil. The nickel is all removed from the oil before it is sent to the market, but usually a minute quantity, one part to a million, is left. It is only by detecting this slight trace that the chemist can recognize for a certainty that the product which is submitted to him for analysis is really a hardened oil. As the metallic nickel is absolutely inert, it can have no effect upon the human system and the actual amount absorbed would be about equivalent to a five-cent piece distributed through eight tons of artificial butter.

If a process of using nitrogen in place of hydrogen through oil and other liquids were perfected, for that is within the dream of chemistry, a new source of food would become available. By treating glucose, oil, or soluble starch in the presence of a catlyzer which would combine them with the nitrogen, it may be possible to produce peptones which are so plentiful in meat extracts used in the making of soups. It might be feasible to coagulate these substances into a casein and thus have synthetic milk and cheese. They might also be converted into albumen, the equivalent of the white of the egg, or into other proteins, which figure so largely in food.

Thus, the chemist availing himself of the peculiar properties of catalyzers or chemical parsons, may be able to work an endless chain of wonders by welding dissimilar elements and at some future day may be feeding the human race with provender gathered from the ethereal fields.

# Chicago Would Keep Sick From Handling Food

THE Public Health Department of Chicago is urging a systematic physical examination of those who handle foods for public consumption, emphasizing these two very important reasons:

1. To protect the patrons of hotels, restaurants and bakeries from such diseases as may be communicated by infected food.

2. To protect and conserve the health of the workers themselves.

Here are some of the New York figures which indicate the need for work of this kind as a means of preventing the spread of disease. Out of a total of 1,590 waiters, cooks, bakers and working proprietors examined in New York city, 1,079 were found with diseases and defects which made them dangerous to public health. The principal ailments and number found affected were as follows:

Syphilis, 19 active cases and 32 suspects; anemia, 370 cases; diseases of the eye, 112; tuberculosis of the lungs, 10, being a remarkably low showing for this disease. Other diseases of interest were: colds and rhinitis, 110; acute bronchitis, 3, chronic, 25; pyorrhea, 208; pharyngitis, 202; tonsilitis, 10, and tonsular hypertrophy, 144.

Under the heading, "Conclusions and Results," the health officials conducting the examination express the opinion that the results found fully justify from the standard of protection of the public health of a community, the careful, medical supervision of all those who handle food.

The New York Department of Health in co-operation with the physicians of that city are already putting into active operation plans for a wider and more systematic activity along these recognized public health lines.

# Why Swift & Company Handle Poultry, Eggs, Butter and Cheese

Swift & Company went into the produce business because they saw a crying need for the kind of service they were equipped to perform.

The produce business was in chaos. Collecting, transportation, preparation and distribution was hit-or-miss, with delay, deterioration and loss on every hand.

The farmer was at the mercy of an uncertain, localized market. He had no way of reaching through to the people who needed what he was raising for them. There was no premium upon improving his stocks, for grading was lax or lacking.

The consumer had to accept produce that, as a rule, had no known responsible name behind it. He had no way of knowing how long the eggs or the butter he was buying had been lying around in miscellaneous lots in the back room of a country store. Much of the poultry was not properly refrigerated before shipment or properly protected by refrigeration in transit.

Swift & Company's initiative brought system to this chaos. Their organization, equipment, and experience in handling perishable food products were already adjusted to the task. Their refrigerator cars, branch houses, central points, far-reaching connections, trained sales force, supplied just what was demanded.

Now the farmer has a daily cash market in touch with the nation's needs with better prices. Standardization makes better produce more profitable. More consumers are served with better, fresher, finer foodstuffs.

Nothing suffers from this save inefficiency, which has no claim upon public support.

Swift & Company, U. S. A.

## Live Stock Industry

Continued from page 21

regard to feeding and watering should be of the very best. A nominal profit should be allowed for the feed which is well worth the money to the shipper, and it should be good and wholesome in order that the animals will eat all of it and not allow any more waste than necessary.

The question of special market days as practiced on some markets should be given consideration. It is the custom to designate a certain day in the week which is considered the best day to market the stock. This practice tends to put entirely too much stock on the market one day while, during the remainder of the week, receipts are far below the requirements of the trade. During any form of congestion it is impossible to give the stock proper attention. The stock yard company is at a disadvantage, the commission man is forced to neglect some, the buyer has more stock than he can handle on the special market day, while other days he is forced to go below his requirements. The market should be an every-day market with receipts regulated in order to arrive as near uniform as possible. This can be accomplished if the live stock dealers will make an effort to educate their trade along these lines. The present manner in which special market days are observed is an old-established custom which no one can give a legitimate reason for. The stock yards hold an important place in our every-day life and are expected to perform this service satisfactorily and efficiently.

The live stock commission business has developed from a very small beginning until today it is one of our national resources. In the development of our country, it was found that our farmer, who produced the live stock, or the shipper who bought it was unable at all times to accompany it to market for sale; or, in the event he could, the expense of the trip was such that he could hardly afford it. Very often he was not familiar with market conditions, consequently not in a position to realize the full value for his stock.

The solution of this condition was the commission merchant of today. A man or firm who made a study of the business handled it in a systematic way and relieved the farmer or shipper of the task of disposing of his stock on the market in person.

A commission man does more work, handles more money, takes more chances, for what compensation he receives than most any other business. If he is successful he is often forced to sell the stock consigned to him on credit, and pays the shippers cash, sees that it is properly fed, watered and weighed, furnishes market information to his trade, and is always considering the welfare of his customer. More money changes hands on the various stock markets of our country without the parties entering into any agreement except oral, than for any other commodity we produce. A man's word in handling live stock is regarded as his bond, and through well regulated live stock exchanges, he is compelled if he wishes to continue in business to respect all trades that he makes. We consider the live stock commission business, if properly conducted, an honorable calling, and believe that the commission man renders value received for every dollar which he charges the shipper.

As the business developed, the men interested realized the need of an organization that would eliminate all who were unwilling to conduct their business on an honorable basis. The need of certain uniform rules and regulations, in order that one firm or individual could not take any undue advantage of his competitor. So the live stock exchange was organized and from this the National Live Stock Exchange was born, and today this organization holds a very prominent place in the development and marketing of our live stock.

No one can doubt the great good which has been accomplished by the live stock exchanges throughout our country. They have succeeded in eliminating many evils and sharp practices which were bound to creep into any business that grew as fast and involved such vast expenditures of money. Rules and regulations have been adopted at various times which were destined to cleanse the markets of anything that would tend to cast reflection on the individual or the market as a whole. However, there are certain conditions which exist practically on all markets that the exchanges have been unable to correct. These afford the Bureau of Markets an excellent opportunity to serve our country in a manner which will not only be a blessing to the public at large but will be welcomed by all interests engaged in this great industry, when by the aid of the Bureau of Markets and their efforts all things which heretofore existed that possibly seemed questionable will be corrected, and the live stock business placed on the high basis which it so justly deserves.

## RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office. Copies thereof may be obtained from R. E. Burnham, patent and trademark attorney, Continental Trust Building, Washington, D. C., at the rate of 20c each. State number of patent and name of inventor when ordering.

1,288,727. Coffee substitute. Severin Sorensen, Dazey, N. Dak.

1,288,868. Candy-cutting machine. Earl S. Gabriel, Indianapolis, Ind.

1,289,021. Process of making a new food product of milk. Paul W. Turney, Richmond, Va.

1,289,326. Tomato-scalding machine. Raleigh W. Walker and Milton H. Hudson, Oldhams, Va.

1,289,850. Process of preserving fish, fowl and flesh. L. W. Manuel, Jacksonville, Fla., assignor to Atlantic Dealers and Development Co., same place.

1,209,045. Dough-mixing machine. Joseph P. Bachman, Newark, N. J.

1,290,191. Manufacture of extracts or beer and other fermented beverages. Herman Heuser, Chicago, Ill.

1,290,192. Manufacture of liquid-condensed yeast-treated extracts from beverages. Herman Heuser, Chicago, Ill.

1,290,193. Dough-proofing machine. George J. Hicks, Saginaw, Mich.

1,290,421. Apparatus for curing and preserving fish. Carl G. Ullin, Issaquah, Wash.

1,290,971. Process for the manufacture of the assimilable organic phosphorus compound contained in vegetable foodstuffs. Max Girard, Basle, Switzerland, assignor to Society of Chemical Industry in Basle, same place.

1,291,082. Container for biscuits, crackers, and other commodities. Martin Moses, Jr., New York, N. Y.

1,291,219. Non-intoxicating beverage. Philippe C. Soyez, Paris, France.

1,291,384. Hydrogenation of fatty substances. James Boyce, Chicago, Ill., assignor to American Cotton Oil Co., Guttenberg, N. J.

1,291,431. Confectioner's table. John W. F. Davis, Spartanburg, S. C., assignor to The Price Candy Co., same place.

1,291,468. Dough-brake and attachment therefor. Samson Frand, New York, N. Y., assignor to National Biscuit Co., same place.

1,291,844. Biscuit-cutting machine. Thomas L. Green, Indianapolis, Ind.

1,292,128. Fruit conveyor and drier. James W. Stevenson, Riverside, Cal.

1,292,261. Pitting-machine. Samuel J. Clifford, Portland, Oregon, assignor to Pacific Evaporator Co., same place.

## Standardized Milk

Continued from page 12

market purposes without a special state license.

(2) Such conditions of standardizing processes should be prescribed as would insure no impairment of the sanitary quality of the milk.

(3) No standardized or adjusted milk should be permitted to be sold unless it conforms to the present legal minimum requirements in composition (3 per cent of fat and 11.50 per cent of solids.) There are some who suggest that the minimum standard for standardized milk be placed at 3.25 per cent of fat and 12 per cent of solids.

(4) Some believe that all containers of such milk should be marked with the words "Standardized" or "Adjusted." There may be an honest difference of opinion as to whether this is necessary or desirable. Use of the word "standardized" on containers might easily be misleading to consumers as referring to superior quality, while the word "adjusted" might readily arouse unwarranted suspicion.

(5) Whatever other safeguards it might be judged desirable to place around the standardization of market milk and its sale, the belief cannot be expressed too strongly that *it is all-important to place on every container of standardized or adjusted milk in plain figures the minimum percentage of fat in milk,* which shall stand as a guaranty that the milk in the container contains not less than the specified amount of milk-fat. This would accomplish several important purposes, among which, briefly stated, are the following:

(1st.) It would serve as a check to prevent adjusting the fat in all market milk down close to the present legal minimum standard of 3 per cent.

(2nd.) It would enable every consumer of such milk to know the minimum percentage of fat in each lot of milk purchased.

(3rd.) It would afford an opportunity for each consumer to purchase milk with the approximate percentage of fat desired, within reasonable limits, if there were any choice, and it would make it easily possible for the distributor or producer to furnish it.

(4th.) It would protect distributors and producers against unfair competition.

(5th.) It would have the tendency of helping to adjust or standardize the price of market milk in accordance with the composition of the milk furnished.

(6th.) The successful employment of such a method would probably have the ultimate effect of making the sale of milk on a guaranteed fat basis supersede entirely the present minimum legal standard method for all kinds of milk, whether normal or adjusted.

---

Caviar begins to take its former place in the market. Yet manufacturers have not lost sight of the fact that this delicacy is almost invariably paired with some liquid refreshment. Can it be that one day there will be a slogan, "No Beer—no Caviar?"—Fishing Gazette.

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# Who Use Home-Made Bread

ONE of the investigations made by the Food Administration during its period of activity was to ascertain whether the foreign born population of this country make their own bread or buy it and to gather statistics as to how much bakers' bread is consumed and how much homemade bread.

The first steps were taken when an inquiry was sent to teachers of home economics in New York City and this met with such satisfactory response that a questionnaire on the same subject was immediately sent to teachers in 63 other cities of the country. Of these, 36 cities reported, the remainder received the questionnaires after the close of the school term.

In New York City 11 nationalities with a total of 25,639 families are represented in the data given, the Russians, Jews, Americans, Italians and Germans predominating. English, Irish, Scandinavians, Polish, Austrians, Hungarians, and negroes are also included. Of the number reporting, 6 per cent bake all their bread, 54 per cent buy all their bread, and 40 per cent buy only a part of their bread. Assuming that in the latter class of families, one-half of the bread is bought and one-half is homemade, it is estimated that 26 per cent of the bread used in these families is homemade compared with 74 per cent of bakers' bread. To put it in another way, if the number of families baking part of their bread is divided equally between the families that bake all their bread and those that buy all their bread, it is seen that the number of families of all nationalities who buy their bread is far greater than the number who bake their bread. Among the families of each nationality the percentage of those who buy is always over 50 per cent. With the exception of the English and Polish families the percentage runs as high as from 71 to 79. In detail Americans buy 78 per cent of their bread, English 63 per cent, Russian Jews 72 per cent, Italians 75 per cent, Scandinavians 74 per cent, Irish 79 per cent, Germans 76 per cent, Polish 59 per cent, Austrians and Hungarians 72 per cent, colored 71 per cent.

There are, however, 5 cities reporting where the greater number of families bake their bread, namely: Boston, Mass.; Duluth, Minn.; Grand Rapids, Mich.; Meriden, Conn.; and Richmond, Va. Boston buying 46 per cent, Duluth 31 per cent, Grand Rapids 38 per cent, Meriden 47 per cent, Richmond 35 per cent. There are other cities in which only slightly more than half of the families reported buy their bread. But of the total number of families for all the cities, 66 per cent buy their bread while 34 per cent bake it at home.

Of the total number of families reporting in all the cities, 37 per cent are American. The percentage of Americans using baker's bread differs only by 1 per cent from the percentage of families of all nationalities in all the cities who use baker's bread, Americans buying 66 per cent; other nationalities 65 per cent.

Among the foreign population the Russian Jews predominate and show the largest percentage of families that buy their bread, 69 per cent. Among the Germans 68 per cent buy their bread, and of the Italians and Irish 64 per cent. Among the negroes, however, the percentage of those that buy their bread is 51 against 49 that bake their bread. Of the following nationalities taken together Austrians and Hungarians, Scandinavians, English, Polish, Bohemian, French, Armenian, and Dutch, 61 per cent bake their bread.

Of American families only 15 per cent are reported as using wholly homemade bread, while 48 per cent use baker's bread entirely, and 37 per cent use both. It would be interesting to compare the different results if the data were gathered from country districts or small towns.

## Try Nuts for Meat

Nuts, in combination with vegetables, cereals, and sometimes with cheese, may be made into excellent meat substitutes. Black walnuts, hickory nuts, and English walnuts may be used interchangeably, but the amount of fat may be reduced when black walnuts are used, as they are particularly rich in it. If nuts are to appear often, it pays to buy only the nut-meats and in fairly large quantities, if they can be stored in a cool, dry place. But if they have to be kept longer than a month they should be purchased in smaller amounts, or in the shell. Almonds and pecans are good meat-substitutes, but they are very expensive unless locally grown. Our own American chestnuts may also be used as an essential food instead of as a luxury or an accessory.

Peanuts are the cheapest form of nut protein, particularly if purchased in large quantities and roasted at home. If peanuts are to be used particularly as a meat substitute, the raw nuts may be shelled, scalded with boiling water, the hulls removed, the nuts dried overnight on papers, and then roasted in large dripping-pans containing two or three tablespoonfuls of vegetable oil each. A very little salt should be sprinkled over the nuts, but not so much as for salted peanuts. If this is done, the meat substitutes will have a particularly appetizing flavor.

## Wholesalers Choose Cincinnati

The thirteenth annual meeting of the National Wholesale Grocers' Association will be held week of June 2, headquarters at the Hotel Sinton, Cincinnati. The executive committee will meet Monday, June 2; directors, June 3, and the convention proper will open on Wednesday, continuing 4th, 5th and 6th.

## As to Eating

It is wise—

To eat to live, rather than to live to eat.

To eat regularly three times a day.

To eat slowly and to masticate your food thoroughly—masticate means chew it well.

To eat some fruit every day.

To eat bread and butter along with your meat and vegetables.

To eat no candy or food of any kind between meals. In other words, don't get the stuffing habit.

To wash your hands carefully before eating or touching your food.

To eat the plain, simple foods rather than the rich, highly seasoned dishes, which though more pleasing to the palate are not so kind to your digestive organs.

---

"Buy what thou hast no need of, and ere long thou shalt sell thy necessaries."

## Discouraging Producers

(Continued from page 15)

manufacturers of such combination foods is compelled to meet not only the ignorance of a large class of buyers who should be using his new food for the purposes for which it is advertised and to lessen the demand for the scarcer foods, but also the foolish obstructionary laws passed by ignorant or prejudiced legislators, what hope is there that enough food will be produced in time to help the starving millions? What incentive is there for our scientific investigators to find more and more food-giving materials? What encouragement is there for the food conservationist?

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## New Officers for Sugar Equalization Board

FOLLOWING a meeting of the Board of Directors of the United States Sugar Equalization Board, Inc., held in the U. S. Food Administration Building, Washington, on February 26, it was announced that George A. Zabriskie has been elected president of the Sugar Equalization Board to succeed George M. Rolph, resigned. Theodore F. Whitmarsh was elected vice-president, James F. Bell treasurer, and William A. Glasgow, Jr., general counsel, E. S. Keeley was elected assistant treasurer.

Mr. Rolph, who has been president of the Sugar Equalization Board since its organization, was compelled to withdraw from this position in order to devote himself to his own business. He tendered his resignation on January 30, to take effect at the time his successor was appointed.

The members of the Board of Directors as at present composed are as follows: Herbert Hoover, chairman; George A. Zabriskie, Theodore F. Whitmarsh, James F. Bell, Dr. F. W. Taussig, C. M. Woolley, William A. Glasgow, Jr.

TRY PINEAPPLE

**Jiffy-Jell**

Pineapple is a flavor which must be sealed to keep. We seal it in a vial.

We use half a ripe pineapple to make the flavor for one Jiffy-Jell dessert. So you get a wealth of this delightful taste.

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There are 10 flavors, but try Pineapple and Loganberry today. Order them now. ***2 Packages for 25 Cents. At Your Grocer's.***

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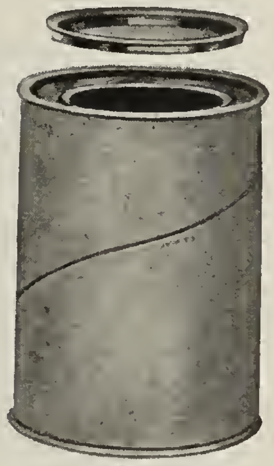

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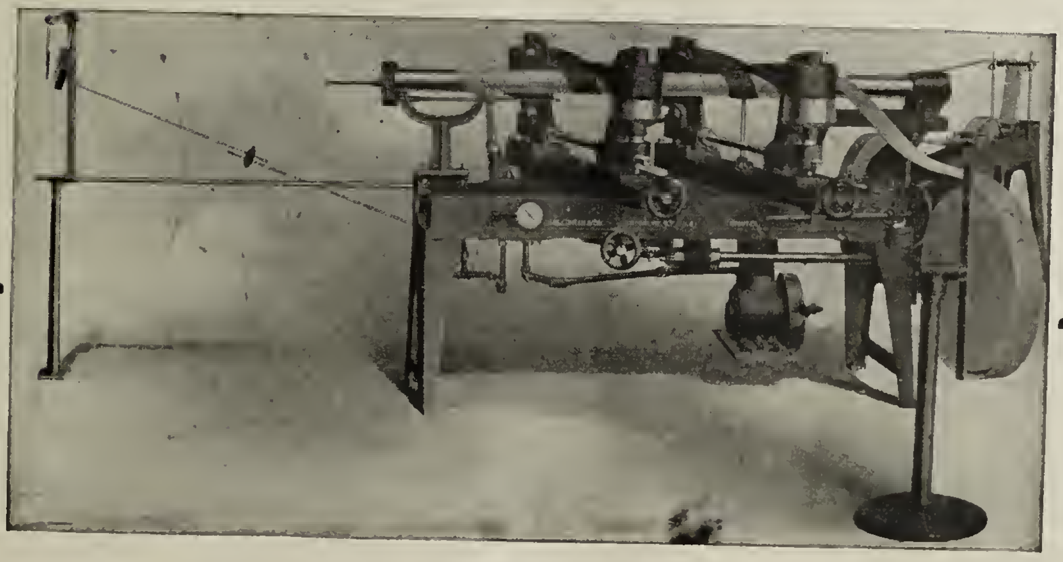

## Better Cream Eliminates Waste, Says U. I. Expert

By bettering the quality of cream, the farmer will make more money and will eliminate an enormous waste, according to Prof. N. W. Hepburn of the department of dairy husbandry of the University of Illinois. The great waste occasioned by deterioration in quality may be remedied as easily as losses by spilling, incomplete skimming and drippings.

By becoming conservators of cream, the farmer and producer will make more money while the consumer will get better butter. To conserve this food product one must keep the milk as clean as possible, separate directly after milking, clean the separator each time it is used, set the separator to skim milk testing 40 to 45 degrees, cool the cream as soon after skimming as possible by keeping it in cold running water and stirring it at least twice a day.

## Small Cities Careless About Milk Inspection

INVESTIGATIONS of milk supplies in 1,327 cities and towns in the United States have just been completed by the United States Department of Agriculture, which finds that only 265 report regular dairy and milk inspection. As a rule, inspection is least developed in cities under 100,000 and a general laxity is especially noticeable in the case of those having less than 25,000 inhabitants. Of cities between 5,000 and 25,000 less than one-seventh report any dairy inspection and in some of these the system of control is only partly developed, as indicated by the lack of suitable means, in the majority of cases for analyzing milk.

### All Cities May Have Pure Milk

According to the department, there is no reason why smaller cities can not have as safe and as clean a milk supply as the larger cities; in fact, a few of the small centers of population where the authorities and the citizens are alert to the need for pure milk have some of the best milk supplies in the country. In cities of more than 100,000 the investigation shows that greater attention is paid to dairy inspection and the character of supervision is also more complete.

Dairy inspection as now conducted is a benefit to producers as well as to consumers since it protects the careful dairyman who operates a clean dairy and sells a pure product from the competition of careless or dishonest producers. Uniformity in dairy inspection is being obtained by the use of a score card developed by the Department of Agriculture. This card is now used by more than two-thirds of the cities maintaining regular milk inspection.

The means of improving the milk situation in small cities, the department believes, lies in energy and leadership by local authorities aided by state or government specialists. Such local leadership, together with funds and a spirit of cooperation are the principal requirements for converting a poor milk supply into a pure milk supply.

### Department Will Help

The Dairy Division of the Department of Agriculture has assembled valuable information on the most efficient systems of milk control including cities of all sizes. This reservoir of experience and where necessary the personal assistance of Federal experts, are available to boards of health and civic organizations which are endeavoring to solve their local milk problems.

### Eat Frozen Fish

**It is now the Lenten season and in addition to the normal demand there will be an increased call for fish by those who, for religious reasons, abstain from eating meat during this period.**

**Eat more fish—the kinds that are frozen solid and covered with an ice jacket as soon as they are drawn from the deep, cool sea—is the advice of specialists of the United States Department of Agriculture.**

**There is an unusually large supply of this kind of fish on hand, probably twice as much as the country has ever had before, and the quality, the specialists say, is as good as the so-called fresh fish that go to the market packed in ice. And the price is more reasonable because the fish were caught in the season of overproduction. The holdings include some excellent kinds noted for their quality, such as weakfish, mackerel, whiting, and herring. People in large cities where hard-frozen fish can be had should give them a trial and people living in the rural districts of inland States need not be deprived of this form of seafood, for during the cold season frozen fish can be shipped by express or sent by parcel post long distances, Bureau of Chemistry investigators assert.**

## Disadvantages of a Mild Winter

There are some thorns to the rose of this kindly and salubrious winter. It has saved the fuel situation and been a Godsend to the poor, but now the very clemency of the weather threatens trouble to certain spring and summer industries, according to reports.

Cold storage men in some districts foresee an ice famine next summer, and farmers fear that the absence of the usual deep frosts is going to prove disastrous during the seeding and crop growing season, unless there is plenty of rain.

## Pure Food Conventions

Continued from page 29

by B. B. Wilcox, Chief, Savannah Station, Bureau of Chemistry, U. S. Department of Agriculture, Savannah, Ga.—Discussion: A. M. Henry, Assistant State Chemist, Tallahassee, Fla.

### Thursday Evening Session

Informal Dinner—Round Table Discussion of any Problems of Interest to the Members of the Association.

### Morning Session, Friday

Milk Control Problems: Municipal Control in Large Cities, by V. H. Bassett, City Bacteriologist and Chemist, Savannah, Ga.—Discussion by W. W. McDonnell, City Health Officer, Jacksonville, Fla.; A. L. Haggerty, Chief Food Inspector, Augusta, Ga.—Milk Control Problems from the Production Standpoint, by P. F. Bahnsen, State Veterinarian, Atlanta, Ga. —Safe Milk for the Small Town—A Discussion of Recent Public Health Service Experiments at Tarboro, N. C.; by W. M. Allen, State Food and Oil Chemist, Raleigh, N. C.

Problems in the Enforcement of the Net Weight Amendment, B. R. Hart, Chief, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York, N. Y.—Factory Inspections—Their Value to Analyst, to Public and to Manufacturer, by H. H. Wagner, Chief Inspector, Eastern District, Bureau of Chemistry, U. S. Department of Agriculture, New York, N. Y.—Cannery Inspection—Recent Results in Georgia Peach Canneries: P. A. Methvin, Chief Food Inspector, Georgia Department of Agriculture, Atlanta, Ga.—Collection of Samples and Records—Cooperation with Analyst: J. J. McManus, Food and Drug Inspector, Bureau of Chemistry, U. S. Department of Agriculture, Savannah, Ga.

### Afternoon Session, Friday

Sea Food Problems of the Southeastern States:

Fish, by Dr. Mary E. Pennington, Chief. Food Research Laboratory, Bureau of Chemistry, U. S. Department of Agriculture, Philadelphia, Pa.—Oysters, by A. M. Henry, Assistant State Chemist, Tallahassee, Fla.—Discussion: State Fish Commissioners.

Cooperative Food Control Between the States in Conjunction with the Bureau of Chemistry, by P. A. Methvin, Chief Food Inspector, Georgia Department of Agriculture, Atlanta, Ga.—Discussion: R. M. Simpson, Chief Chemist, South Carolina Department of Agriculture, Columbia, S. C., and J. W. Pickel, Feed Chemist, North Carolina Department of Agriculture, Raleigh, N. C.

### Hotel Headquarters

The Hotel Burbridge has arranged to furnish accommodations at special rates to members of the Association. As this is the crowded season in Jacksonville, hotel reservations should be arranged in advance by each person planning to attend.

Every table should be spread and every meal should be eaten with the wants of the world in mind.

## The Food Value of Rolled Oats

THE Scotch, who as a race are noted for their splendid physique and health, are famous for their large consumption of oats.

The country from which the oat originated is very hard to determine, although signs of the food have been found among the remains of the late cliff-dwellers of Switzerland. And there is also reason to believe that this grain was cultivated by the prehistoric inhabitants of eastern Europe. The value of oats was well known to the ancient Greeks and Romans, who considered this food a highly nutritious article in their diet.

Throughout Scotland and the northern part of England, oats are used largely in the form of oat-cakes—oat-meal is mixed with water, thoroughly kneaded and then rolled into very thin cakes, and then baked on an iron plate or griddle which is suspended over a fire.

The nutritive value of oatmeal ranks high when compared with other foods. It contains a very large percentage of bone and muscle-forming material, which is essential to the growing child.

One reason why so many people do not use rolled oats is because the ordinary brand has to be cooked for a long time. However, owing to a new form of milling, the nationally known quality oats are partly cooked and therefore require only fifteen or twenty minutes' cooking. These oats also have a better flavor than ordinary oats, as the grain is partly dexterized in rolling. Cooked with seedless raisins, these oats make a very tasty and highly nutritious food; and, if this form of food were eaten more, by the average American, instead of pancakes, there would be less sickness, as oats act as a splendid stimulant to the alimentary tract, and assist in helping Nature eliminate the waste-products of the body.

Many people claim that rolled oats disagree with them owing to the formation of gas in the stomach. They will find, however, that it is not really the oats—owing to their special idiosyncrasy, the sugar which they add to the oatmeal causes a fermentation, which is the cause of gas—and if the sugar is eliminated. this trouble will not occur.—Dr. Lorna A. Summers in "The Business of Being a Housekeeper."

THE AMERICAN FOOD JOURNAL extends its heartiest congratulations to the Michigan Food and Drug Monthly and Commissioner Fred L. Woodworth.

The first number of Commissioner Woodworth's new magazine should convince every citizen of Michigan of the efficiency of the Food and Drug Department of the State. Most monthly bulletins are dry reading, interesting only because of the statistics they carry. Commissioner Woodworth's report is a live magazine, full of valuable information and interesting articles. It is sure to earn for him the approval of every food official as it does our sincere praise.

---

According to Food Administration calculations the world will be far below its normal supply of fats for at least two to three years. These calculations include our present output and the estimated splendid efforts of producers for the future.

---

A whale's skin, which in places is two feet thick, is the thickest hide of any living creature.

NUCOA
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ONE POUND NET
NUCOA NUT MARGARINE
COCO-NUT BRAND
CHURNED FOR TABLE USE
Free from Animal Fats
OLEOMARGARINE
THE NUCOA BUTTER COMPANY
WE BRAND THIS PRODUCT OLEOMARGARINE TO COMPLY WITH THE LAW BUT IT IS ABSOLUTELY FREE FROM ANIMAL FATS.

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# Report on Oleomargarine

The committee appointed to make recommendations as to what should be the attitude of the Association of Southern Agricultural Workers on the oleomargarine question, submits the following expressions of opinion:

1. That oleomargarine is a legitimate commercial product when sold as such, but that the present requirements relating to the coloring of the product are unsatisfactory;
2. That latitude should be given for the manufacture of oleomargarine in forms which will be most attractive to the consumer, when so made under Federal supervision, but that these products should not be permitted, in any measure, to be sold or served as butter. In order that the public may be adequately protected against deception, all preventive measures found necessary should be adopted, and a Federal tax sufficiently large to cover all expenses of proper control should be levied;
3. Accepting the fact, the statement that dairying is the form of live-stock husbandry which tends to increase and take the place of meat production, as population increases and foods become relatively higher priced and more scarce, and,
4. Accepting as a further fact that the cow is essential to the most economical disposal of the rough by-products and crop residues of the farm, and that accordingly she is essential to the most economical improvement and conservation of soil fertility;

Therefore, the committee is of the opinion that the building up of a dairy industry in the South is of much greater importance to the agricultural development of the South than is the extension of the oleomargarine production or the furnishing of such an enlarged market for vegetable oils as would be furnished by such increased oleomargarine production. However, the committee is also of the opinion that if oleomargarine is made under strict Federal supervision, and is sold absolutely on its merits, for just what it is, the dairy industry has little to fear from such fair competition.

## New State Laws

(Continued from page 34)

### Washington

Senate Bill No. 250 is a prohibition bill that would make it unlawful to manufacture or sell any preparation containing in excess of one one-hundreths per cent of alcohol.

### West Virginia

Senate Bill No. 99 would require all manufacturers, sellers or distributors of soft drinks to secure a state license, the license fee for manufacturers, wholesalers and distributors to be $100 and retailers $2 per year.

### Wisconsin

Senate Joint Resolution No. 28 is an act to appoint a commission to investigate the business methods as pertains to activities in the state of certain packing houses located out of the state.

Senate Bill No. 146 is a prohibition bill similar to Ohio H. B. No. 24, see above.

House Bill No. 294 defines intoxicating liquors.

—. A bill, the number of which has not been given us, is said to have been introduced in the House under the title, "A Marketing Bill," and which will seriously affect every food dealer doing business in the state.

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CLEANLINESS, HEALTH INSURANCE, ECONOMY AND CONVENIENCE IN

Our PET BRAND Evaporated Milk

*The Standard of the World*

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ORIGINATORS OF EVAPORATED MILK

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The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

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## Show Milk's Value to Children

No more convincing proof of the value of milk in the diet of children can probably be found than in the results of experiments conducted for several months by the home demonstration agent in Manatee county, Florida. She has weighed and measured over 2,000 children, and has found that those weighing and measuring up to the standard, or a little above, are almost without exception receiving a great deal of milk. The children much under the standard have been receiving little or no milk.

Carrying the experiment further, underweight children began almost immediately to show gains when milk was added to their diet. With such evidence as to the value of milk it is not surprising that Manatee county has more dairy cows now than a year ago, and the number is rapidly increasing. The results of this experiment are being used as one of the arguments in a state-wide campaign for more dairy cows.

## Ohio Station Data to Be Used in France

Through a request of the Ministere de L' Agriculture in France, a large number of the bulletins and circulars printed by the Ohio Experiment Station are being sent to the French republic to be used in securing information for the reconstruction work in devastated areas. Photographs of modern ditching machines, of harvesters for cereal crops, of results of fertilizing experiments, of baking experiments, of up-to-date farm buildings, of tractors and of seeding machinery are also being sent to the commission at the request of the French government.

From the text of the request it is evident that an attempt is being made to introduce the more extensive methods of farm husbandry into French agriculture. Information is wanted particularly on the installation of motor power for farms, "farm exploitations for the rapid performance of work," the use of tractors for extensive tillage, cultivation and reaping, "because of the difficulties of obtaining labor."

---

The most expert whalers today are the Norwegians. Many years ago British whalers were supreme, but owing to the short-sightedness of the government, who withdrew the bounties, the number fell off.

**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley,** INCORPORATED Chicago

**TIN and FIBRE CONTAINERS**

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*Largest Distributors in the World*

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**SOMETHING NEW**

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**GRANULATED BORIC ACID**

Will dissolve more readily than any form hitherto introduced
- - When ordering, specify - -

20 Mule Team Granulated Boric Acid
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## How to Candle Eggs at Home

To candle eggs, a darkened room will be required. If you have electric light cover the incandescent bulb with a cardboard or metal box. In the front of this cut a hole the size of a half dollar. To make a "candler" out of a kerosene lamp, place the lamp in a tin box, or piece of stove pipe. Cut a hole the size of a half dollar, on a level with the burning wick. Leave an opening in the top of the box for the chimney to stick through. With the thumb and two forefingers, hold the egg before the light. The contents of the egg shell will be plainly seen. Give the egg a quick twist. This will rotate the yolk, and you will be able to see it move around. Every egg will show a fine line near the big end. This is due to an air space. As the egg gets older, or staler, the the air space gets bigger. By watching the size of the air space you will be able to tell how fresh the eggs are.

A good, fresh egg should have a small air space. The yolk should not be very plain. There should be no black spots or rings. Sometimes the egg shell will have fine cracks in it. This is commonly known as a "check" egg, and should not be shipped with first quality eggs, as it rots very quickly.

An incubated egg will show a distinct ring of blood in the yolk. "Blood rings" are classed as unfit for food, and should be rejected.

"Moldy eggs" will have cracked shells, and will show black spots before the candle. Unfit for food.

"Black rots" look more or less black before the candle. Unfit for food.

"Mixed eggs" have broken yolks. When such eggs are turned before the candle, the yolk appears more or less mixed up with the white. Unfit for food.

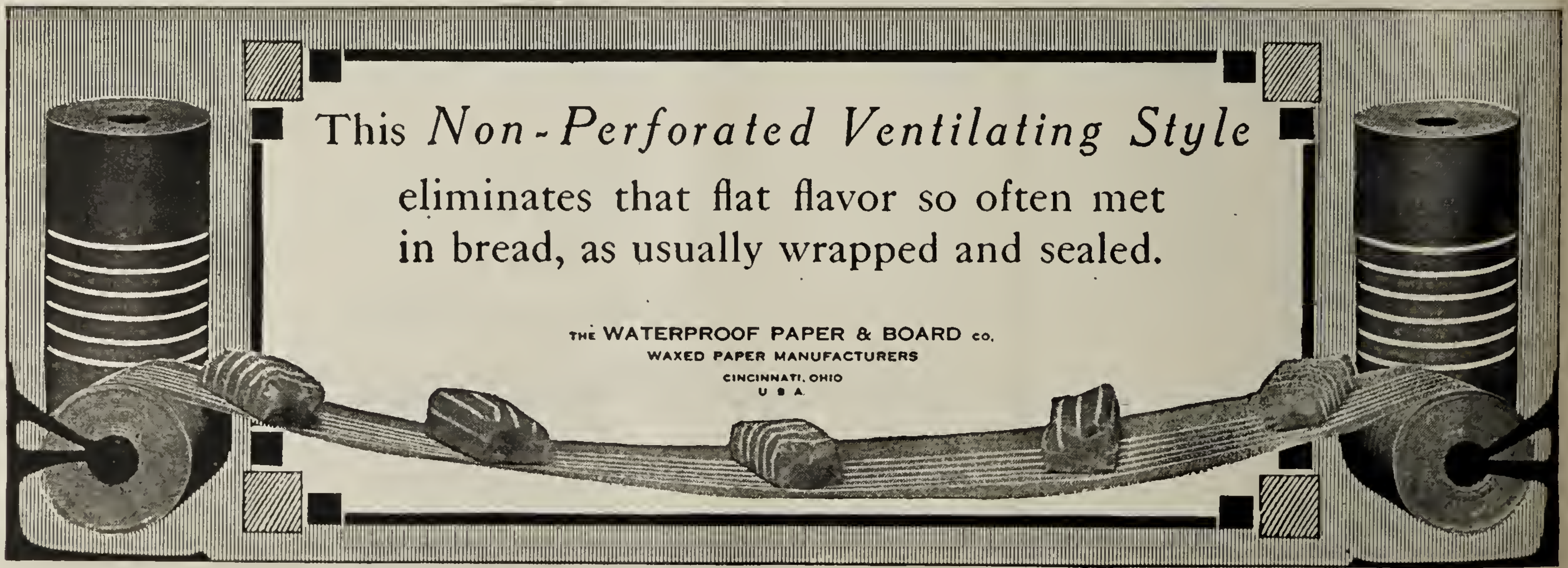
In some eggs, the yolk will appear to be stuck to the shell. Give such eggs a few rapid twists. If the yolk does not float free, the egg is unfit for food. If the yolk floats free and is not broken it may be sold for food, but is of inferior quality.

In the summer time many eggs before the candle will show very dark, heavy yolks. These are known as "heated eggs," because exposure to the sun or other heat has started decomposition. A "heated egg" is fit for food, but is not of first quality. "Heated eggs" are due to careless handling.—*Michigan Food & Drug Monthly.*

## "The Color of an Egg Is Only Shell Deep"

In New York the soft boiled egg must be served in a white shell. In Boston the brown egg is preferred. This habit of choosing is expensive. In New York white eggs command a premium. In Boston brown eggs top the market. As a matter of fact it makes no difference whether the egg is in a white or brown shell. The egg laid by a Plymouth Rock hen in a brown shell has the same food elements in it as the white egg laid by a Minorca. It isn't the color of an egg that determines its quality, it's the way it is brought to market and handled up to the time it is prepared for serving. But so long as we indulge our whims and cater to the notion that white eggs are better than brown, we have to pay for it, and that's another reason why we have cause to complain about the high cost of living.

A Change of Fortune hurts a wise man no more than a Change of Moon.—Poor Richard.



This *Non-Perforated Ventilating Style* eliminates that flat flavor so often met in bread, as usually wrapped and sealed.

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## Meet to Plan Live Stock Increase

REPRESENTING the farming, stock raising, packing, dairy, transportation, mercantile and banking interests of the state, William Church Osborn, New York; Jacob C. Dold, Buffalo; James W. Wadsworth, Sr., Geneseo; Lewis P. Furlman, Buffalo; Clarence F. Eckhardt, New York; Hugh C. Troy, president, State Dairymen's Association, Ithaca; F. W. Sessions, Utica; Harry C. Harpending, Dundee; Charles W. Larmon, Albany, and Dorr W. McLaury, Chief of the Bureau of Animal Industry, Albany, were named a committee by Calvin J. Huson, president of the New York State Breeders' Association, to investigate fully into the possibility of increasing live-stock production in New York State.

This committee was authorized at the recent meeting of the state breeders in Buffalo, following a declaration by Statistician Larmon that 1,720,000,000 pounds of beef, pork, and mutton were annually consumed in New York, of which less than one-third was produced upon the farms of the state.

In view of the fact that the annual growth of population of the United States is greatly in excess of the increase in meat production and that the demands of foreign countries will undoubtedly continue abnormal for several years, the State Breeders' Association believed it to be of great importance that every effort be made for increasing live-stock production on the farms of their state.

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The American housewife has served well; she now has a more difficult task before her—one which will continue throughout the coming year. Until we have banished the specter of famine from the world's table we must not relax our efforts to save food.—*United States Food Administration.*

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California is prepared to meet the competition of imported sardines, if the quality of new shipments may be judged to mean that there is a "quality" movement afoot along the sunny shores of the "Golden State." This recognition of an obvious necessity comes none too soon.

---

Not until shell-torn battlefields are turned into wheat fields will Europe cease to look to us for food.

**Flavor and Aroma!**

*What would YOUR morning cup be without them?*

Moderate priced and the very finest coffee, tea, spices and package foods retain their characteristic flavor and aroma when the package is lined, sealed, or both, with KVP vegetable parchment or waxed paper.

As the package says—the use of a KVP paper liner "Preserves the French Market flavor and aroma."

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A perfect Nut Margarine should have the following requisites:

Keep sweet as long as butter.
Soften at the same temperature.
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Have a texture so as to spread like butter.

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Churned in pasteurized milk.
Contains no animal fats.

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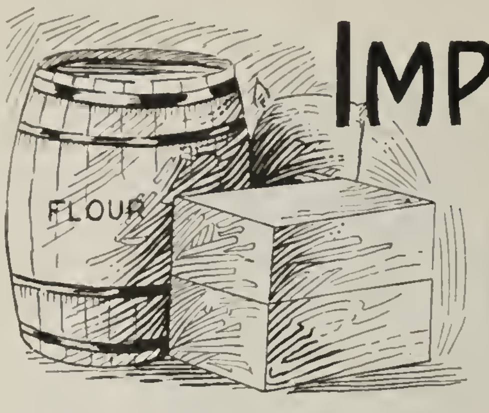
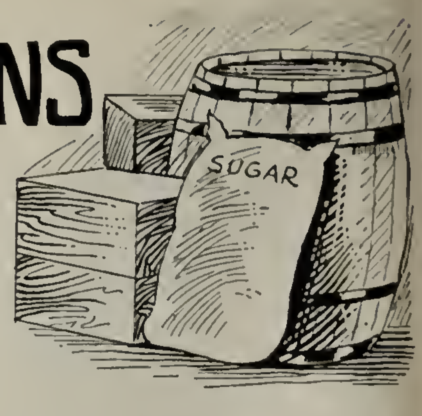


# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY



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**Rice Millers' Association**
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**Southern Cattlemen's Association**
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**Southern Rice Growers' Association**
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**Tea Association of the United States of America, Inc.**
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**United States Sugar Manufacturers' Association**
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**Western Fruit Jobbers' Association of America**
W. D. Tidwell, Esq., P. O. Box 1349, Denver, Colo.

**Western Paper Box Manufacturers' Association**
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## Rhubarb Pie a Tonic

SOME day some wide-awake pie man is going to make a big batch of rhubarb pies and advertise them as a spring tonic, just as the patent medicine men do their alcoholic concoctions. Rhubarb pie is a real tonic. It doesn't owe its stimulating effect to alcohol either. You may be interested to know that the rhubarb plant or pie plant that grows in every old-fashioned garden belongs to the buckwheat family, but there is little in common between buckwheat cakes and rhubard pie except their common ancestry.

The thick leaf stalks, mostly water and fiber, when softened by cooking, make excellent sauce and superb pie. The juice is highly acid and this makes it necessary to use large quantities of sugar in preparing it for food. In this way, either as sauce or pie, it becomes nutritious. Another interesting thing about rhubarb different from many vegetables is that it contains considerable fat, more than one per cent.

Rhubarb belongs to the same family which furnishes the horrible nauseating root we used to be forced to take as medicine when we were children. It, too, has some medicinal qualities and acts slightly as a laxative. Beside its use as a filling for rhubarb pie it is of value in making a wine which has a characteristic and highly appreciated flavor. To make this wine it is only necessary to express the juice, add sugar and allow it to ferment. It must be remembered, however, that the alcohol formed in this case is the same kind of alcohol that is formed when the juice of the grape or apple ferments.

Rhubarb contains a large amount of the salts of oxalic acid, and because of that fact it should not be eaten by persons who are inclined to suffer from gout or rheumatism. In other words, like most foods, rhubarb pies should be eaten only by those who like them and who find their use beneficial.

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## Wilson & Co. Statement

The annual financial statement of Wilson & Company for the year ending December 28, 1918, made public this week, shows that the company made a net profit of 1.9 cents per dollar of sales on business done last year. Volume of business aggregating $400,000,000 made this profit possible. Although the government permits a profit of 9 per cent, the company made a showing of only 6.70 per cent profit on the products coming under government regulation.

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| Cost of 6,221 Calories | |
|---|---|
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THE AMERICAN FOOD JOURNAL

C. A. Patterson, Publisher
H. E. Barnard, Ph.D. Editor
Wm. G. Davies News Editor
Cunard Bldg., Chicago

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## "Say When"

START the legislative bodies to considering a certain kind of action and there seems to be no end to the number and variety of the laws proposed on the given subject.

If you have been reading the digest of laws proposed in the state legislatures which THE AMERICAN FOOD JOURNAL has been publishing, you have doubtless been impressed with the vast number of measures proposed to stop all forms of traffic in liquors, beverages and in liquid goods of all kinds which contain alcohol.

Extract manufacturers have been seriously disturbed by the many laws proposed which have been worded in such a way as to prohibit the manufacture or sale of flavoring extracts.

Many of the laws are not really intended by their proponents to hit at flavoring extracts, but are aimed at the so-called patent medicines, but in the attempt to include all alcoholic patent medicines they are worded so broadly as to include every liquid that is "potable" and extracts are "potable," although it is hard to conceive of anyone who is sane and who still possesses his sense of taste and enjoyment, drinking extracts as a regular thing.

As flavoring extracts are used in almost all soft drinks, it seems inconsistent that in the scramble to kill the demon rum the alternatives themselves are to be tasteless liquids. That is unless flavoring extracts are saved. This applies to candies, desserts, ice cream, etc., as well.

And so, while we have always stood for pure drinks as well as pure food and have believed that prohibition is a part of the great Pure Food program to keep humanity from putting into its system the things that not only do not nourish but which destroy the body, it does seem that there should be some one to "Say When" to stop in this matter of prohibiting alcoholic drinkables or usables.

In our May issue we will have a story on this subject that we think will interest all who are trying to keep abreast of the time.

The second of the series of Oleo-Margarine articles will also appear in the May number and in this one some of the intimate details of the fights between margarine and butter in the various states will be told.

Miss Wright's articles on the Dietetic Value of Canned Foods will be continued in the May number with an article on canned vegetables. These stories are proving of great interest to the professional dietitian and the teacher of home economies.

Some of the speeches that were delivered and sentiments expressed at the recent convention of the Food Control officials will be given in our next issue and these are well worth the careful reading of officials, manufacturers and students of food affairs in general.

C. A. PATTERSON.

He Shot the Gun

And Found that He Had the Greatest Wheat Food in Existence

Prof. A. P. Anderson knew that each wheat kernel contained some 125 million food cells.

He knew that each cell contained a trifle of moisture.

So he said, "I will turn that moisture to steam, then explode it. Thus I will burst every food cell so digestion can instantly act."

It Took Years But He Did It

He finally solved the problem by sealing the grains in huge guns. Then he revolved the guns for one hour in 550 degrees of heat.

When he shot the guns, every cell exploded. About 125 million steam explosions occurred in every kernel.

Airy, Flaky Bubbles

The grains came out shaped as they grew, but puffed to bubbles, eight times normal size.

The fearful heat created a toasted nut flavor.

The explosions created flimsy morsels, which melted away at a touch.

He had what is recognized everywhere now as the most delicious wheat food in the world.

But above all it was a whole grain made wholly digestible. Every food cell was broken, and that never before was done.

He applied the same method to rice. Then to pellets of hominy, and created Corn Puffs.

Now there are three Puffed Grains, each with its own delights. And happy children are now getting about two million dishes daily.

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# Easter Comes With a New Promise of Peace and Prosperity

*By H. E. Barnard, Ph.D.*

EASTER lilies bloom today in a world no longer at war. A year ago the crushing power of militarism was dominant in western Europe, and whether might or right would conquer depended on the rapidly growing army of American boys our troop ships were landing in France. And while our army was gaining the strength that broke the advance of the German lines in early summer, hurled them back disordered in the Autumn, and drove them to their knees in abject defeat on November 11th, we at home were steadily piling up the reserves of food that almost as truly made victory possible. America furnished the food that saved Belgium during the cruel years of German occupation; that fed the French and English armies when the last onrush of the Huns beat them back from their bases and captured thousands of tons of army stores; that gave strength to all the workers back of the line in every allied country. Our farmers, our packers, our millers, our canners, our every food industry enlisted for the war and threw their energy into the vital effort of producing food faster than it could be sunk by submarines, captured by the enemy, or consumed by hungry soldiers and underfed civilians.

The record of the United States Food Administration, headed by Herbert Hoover, a general who needs no stars to mark his rank, was one of complete success. The dietetic habits of a hundred million people were changed almost overnight. Wheat flour lost its color; standardized bread of strange flavor, but still full of food value, drove the white loaf from the table; sugar was unobtainable and syrups of infinite variety sweetened our coffee; meatless days were observed without complaint, and fats disappeared from the bill of fare. The staple and standard foods of normal times were banned. Substitute foods came forward by the score. Every food industry changed its methods and its output. We had a war to win.

Eastertide a year ago was momentous. This Easter is a time of gladness. The war is over. The work of the future is before us. Are we ready for it? Will the lessons we have learned in thrift, in industry, in invention, stay with us, or do we but wait the day when we can fall back to the habits that ruled us before we went to war?

Of this we may be sure, that long after the spirit of patriotic fervor that made every rule of the Food Administration a new commandment has waned and gone, the memory of the new dishes we made from cornmeal, the butterless spread, the sugarless sweets, will stay with us. And it will be easier to teach us new food habits, to introduce new flavored dishes, new cereals, new sugars, new canned products, new beverages, because we have been through the mill and know that there is virtue in new things, even in new foods.

Out of the chaos of political and economic unrest, which waits the conclusion of peace and an agreement of all civilized and humane people that there shall be no more war to sustain dynasties or subject weaker people, the world will be born again, socially free and equal, politically self-governed, economically sound and sane.

In this new era of world righteousness an adequate supply of suitable food is the balance wheel which will stabilize society. The world produces a vast amount of food but there are millions to be fed. There is never much surplus food in store. If production of food should cease, the whole stock would be gone in two months. With much of Europe still disturbed normal crops cannot be expected at the coming harvest. Lessened production in Russia, in Roumania, in the Ukraine, even in France and Italy, must be met by increased production in this country. And as long as the food supply is short in any part of the world, food prices will be high to the consumer and production will be profitable to the farmer. Every condition, the need of food abroad, disturbed transportation, high labor costs, the shortage in essential fertilizers, the strong financial status of agriculture, makes for sustained high prices of all food stuffs. And this fact will, as during the war, stimulate the manufacture of new foods and the changing of the dietary in the home.

With new foods will come the necessity for a new nomenclature, new labels, new marketing methods and, inevitably, new legislation. These very facts bring the food officials new opportunities for helpful service just as at the same time they develop new control problems. Is it too much to hope that in the new era into which this Eastertide of peace is ushering the world we may greatly enlarge our food supplies, both by stimulating production and converting to use the vast stocks of raw material which we have not yet learned to utilize at the manufactory, or enjoy at the table.

Opportunity is here. Manufacturer and official alike are listening for her knock. Open wide the door.

# The Adorable Doughnut to Have a Big Day All Its Own

*By F. M. Clary*

DOUGHNUTS—plain ordinary doughnuts, crisp and browned with a hole to eat around and throw away—have come into their own. Since these ugly ducklings of the pasty cook's delicious art were first puddled around in pans of grease they were associated generally with a visit back home and steaming cups of coffee. So faithfully and efficiently did they serve humanity that they came to be accepted as a matter of course. Doughnuts were good to eat but they were just doughnuts.

On through the years they came—still doughnuts. They filled the need for countless millions of late "snacks" and the school lunch boxes of many generations. As every dog has its day so the doughnut was waiting for the big day in its career as a satisfier of men who hunger.

Until the world war turned the well-oiled machinery of everyday life topsey turvey that day seemed far off. When the Salvation Army war workers first went abroad it did not seem very close at hand. One day a conference was held close up to the front line trenches. The conferees' were khaki-clad Salvation Army lassies and the subject under consideration was the best way to get a maximum of nourishment and comfort out of a minimum of supplies. Hours passed still no decision had been reached. Suddenly Ensign Agnes Shelden struck her tambourine.

"Glory Hallelujah!" she cried. "I have it. Doughnuts!" That is the true story of the emancipation of the doughnut and the first step in the climb to national acclaim. The top of the ladder will be reached on May 21st, when the workers for the Salvation Army Home Service Fund will do honor to it—a day set apart and known as Doughnut Day.

Hail the doughnut—the only article of food to have a day dedicated in its honor. Completed plans have not yet been announced, but even in their tentative stage they assure many novelties and surprises. The Doughnut Day will be one of the features of the Salvation Army's Home Service Fund Campaign for $13,000,000, which will be conducted during the week of May 19-26.

Now that the date has been decided upon every effort is being made to dignify the doughnut with proper praise. The Salvation Army made the doughnut famous "Over There." The doughnut made the Salvation Army famous "Over Here."

Doughboy and Doughnut

Under all conditions and circumstances, winter and summer, good times and bad, the Salvation Army for a period of fifty years and more has struggled among the sick and the destitude in the United States. It has recognized no difficulties and forgot entirely the word "failure." The lower men and women sank on the social scale the more determined became the efforts of the noble little bands of men and women to rescue them. Into dives and brothels, into prisons and into the slums they went, ever searching out the needy and the sick of body and of heart.

The Salvation Army grew as its work broadened in its scope. Slowly but surely the Army gained public recognition and support. The lass with the tambourine made a great fight against the unjust prejudice of the unthinking men and women. They devoted half of their time to the collection of funds that they might work to some definite advantage among the needing during the other half. During the war their efforts among the poor were not diminished. Gladly did the Salvation Army increase its burden and carry the same unselfish service to the men in France. But Destiny waited "Over There." The many services performed daily by the Salvation Army workers found their popular expression in the crisp, browned doughnut.

Day after day and night after night the young women workers stood over bubbling caldrons of grease and fried "millions of 'em." It did not matter to them that oftentimes shells were screaming over the hut or dugout in which they worked. Even when shells exploded perilously close—so close that the workers were knocked down by the force of concussion—they would not halt their efforts. The doughboys wanted doughnuts — expected doughnuts — needed doughnuts.

And now that the work with the troops abroad is nearing its end the popularity gained for the Salvation Army by the ugly duckling of the kitchen has called for greater efforts by the organization in the home field. As expressed by Commander Evangeline Booth, it is but the outward sign of new and greater responsibilities. The unstinted praise given by the doughboy has been interpreted by the Salvation Army as an expression of expectations of greater things to be done.

Yield to the doughnut the homage that is its just due. It brightened many dark hours for the fighting Yanks abroad. It heartened many men weary with the long march through muddy roads. It conjured before the eyes of many heart-sick men visions of home for the Salvation Army doughnuts were—just like mother used to make.

---

Although American peanut oil was almost unknown before the great war, in 1917 it ranked third in the vegetable oils made from home-grown products.

# Margarines Have Earned the Right to a Free Market

## A Brief History of This Product Over Which a War Has Been Waged Ever Since It Was First Given to Hungry Humanity

*By Wm. G. Davies*

**This is the first of a series of articles dealing with the fight that has been waged for years against margarines. In this article the history of the product is told and something of the theories and arguments that have been used against it.**

**In the next issue will be told many of the inconsistencies in the attitude of the dairymen in their fights in the legislative halls of our various states and some of the absurd laws which they have had passed or tried to have passed.**

SOME day the great American Public is going to get tired of the continual warfare over the oleo-margarine question. When that day comes this all powerful Public is going to push away the onesided technical arguments that are smoking up the issue; it is going to oust the politician who argues learnedly on scientific issues about which he knows nothing and sheds crocodile tears over the poor suffering public and then loudly registers his "aye" or "no" according to the selfish financial interests of his district adherents and his best vote getting judgment.

Oh it's going to be a merry clean up when it comes and the truth is going to be demanded in a voice that will not be gainsaid. And when truth is demanded it has a habit of showing itself with its clear, unmistakable features. On that glad day the long suffering humanity is going to say to the dairymen, "Get back to your dairy farms. Raise larger dairy herds, produce more milk and dairy products and see to it that they are wholesome and free from corruption and disease and I will buy and eat all that you produce and pay you well." And it will say to the margarine makers, "Go back to your factories and take the oils and fats that nature has intended for us and make them into a pure wholesome product and I will buy all you make and eat them and will pay you well."

### An Unholy Spectacle

It's an unholy spectacle that is presented to the gaze of the layman who neither supports nor is supported by a dairy farm and who is neither owned by nor owns a margarine business, for here he sees a great industry that produces food seeking to control and enlarge a market that is already larger than it can supply, by passing laws that have for their purpose the hampering and restricting of another industry which is trying to do the same thing, namely, to supply more food to a world that is in serious need of more food.

### A Half Century Old

Just a half century has passed since the first oleo-margarine was given to the world. It was during the Franco-German war, in 1869, that Napoleon III, realizing that the scarcity of fat foods was undermining the health and fighting strength of his people, offered a prize to the person who would produce the best substitute for butter. Hippolyte Mege, or Mege-Mories, a French chemist won the prize by presenting to Napoleon a batch of oleo-margarine which he had made by churning skimmed milk and beef fat. To arrive at the result Mege Mories had shrewdly figured that the butter fat in the milk was due to the absorbtion of the animal fat of the animal by the fluid. So he argued that if skimmed milk was churned with the fat from the animal it would absorb the fat and produce butter.

His first experiments, however, show that he believed that the udder of the cow had much to do with the process of causing the fluid to absorb the fat and he figured that if the udder was churned with the fat and milk he would get a better result. After one or two attempts he wisely abandoned the udder and got what he wanted by mixing only the fat and the fluid in a churn.

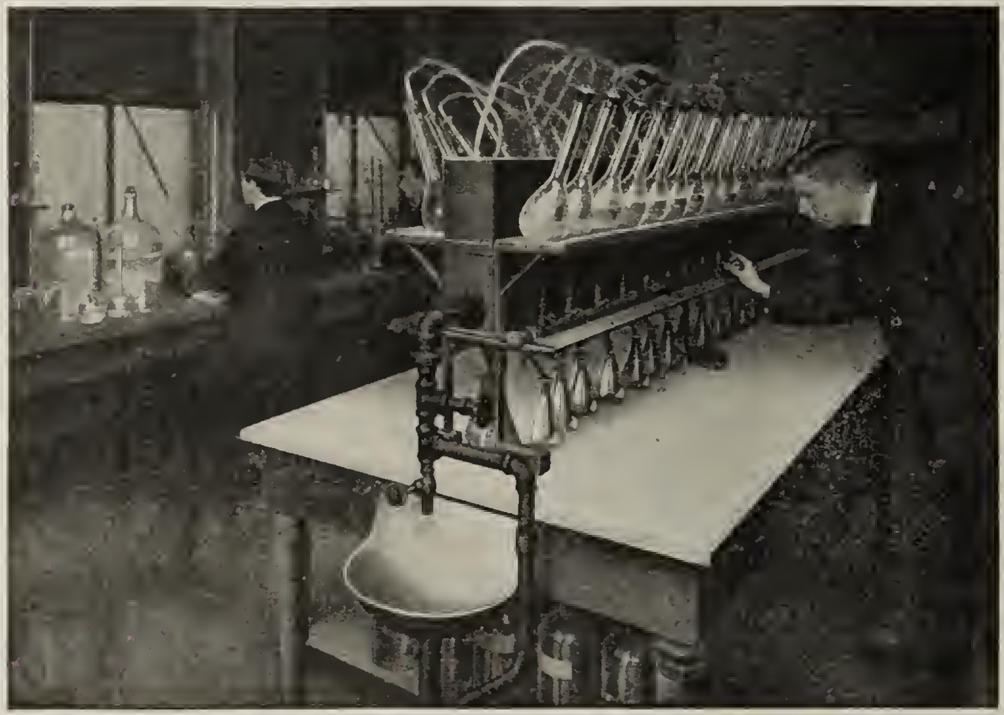
Although we have refined and made many variations of the process the oleo-margarine of today is essentially the same as the product which Mege Mories produced.

The example which the French set in oleo-margarine making was soon followed by other countries. Belgium, Holland, Norway, Sweden and England, in fact every country where dairying was followed, became an oleo-margarine manufacturing country and in the late seventies Americans began to produce the artificial bread spread that has disturbed the minds of every cow owner in this country ever since, causing him to dream of being put out of business just as cloth weavers of England dreamed of losing their jobs when the machine looms were invented.

### Causes Consternation

As a result of this disturbance of the minds of the dairymen our legislative halls have been the scenes of many fierce battles "to protect the dairy industry from annihilation" and our statute books are filled with laws, repeals and amendments, most of which were aimed at the annihilation of the margarine industry. No other food has had to make its way for so long a time in the face of such fierce opposition as has the margarine and yet it has lived, it has thrived and obtained almost universal recognition in spite of discriminating taxes, hampering legislation and a mass of literature in the form of newspaper articles, advertisements, pamphlets and books, all telling of the evils that would befall this country if margarine was used.

And the strange part of it is that while the oleo-margarine industry has thrived the dairy industry has not suffered as a result. I said strange, but really it is strange only if we take the opposition statements that the dairy people have been putting out for years and compare results by them. But a square look at the facts and a little logical thinking will inevitably bring one to the conclusion that what has happened was the only thing that could have happened. This fact, I think, is incontrovertible that milk and milk products are the greatest of human foods and unless there is a complete revolution in scientific thought and in the dietetic system of the white race they will always remain the principal and most desirable foods and if milk and milk products were so plentiful that every one, rich and poor alike, could secure all that are needed no substitute or alternative for them could ever survive.


Chemical Tests Are Made at Various Stages in the Manufacture

MARGARINE CAME INTO EXISTENCE BECAUSE OF A SHORTAGE OF BUTTERFATS AND MARGARINE HAS THRIVED BECAUSE THE PRODUCTION OF DAIRY PRODUCTS HAS NEVER KEPT PACE WITH THE GROWTH OF POPULATION.

The true status is clearly visualized to any but an unprejudiced mind if the present situation is given but a moment's thought. With butter selling around seventy cents per pound and milk around fourteen cents per quart, the highest prices over an extended period ever recorded, every pound of butter that is made finds a ready market and every quart of milk can be sold and this in the face of the fact that margarines of all kinds are selling for just a little more than half the price of butter—and every pound of margarine that is produced finds a ready market.

The justification which the dairy industry always pleads for its demand for restrictive legislation against oleo-margarine is that the dairy industry is indispensible to the welfare of the country and that the marketing of substitute or alternatives for dairy products threatens the life of this industry.

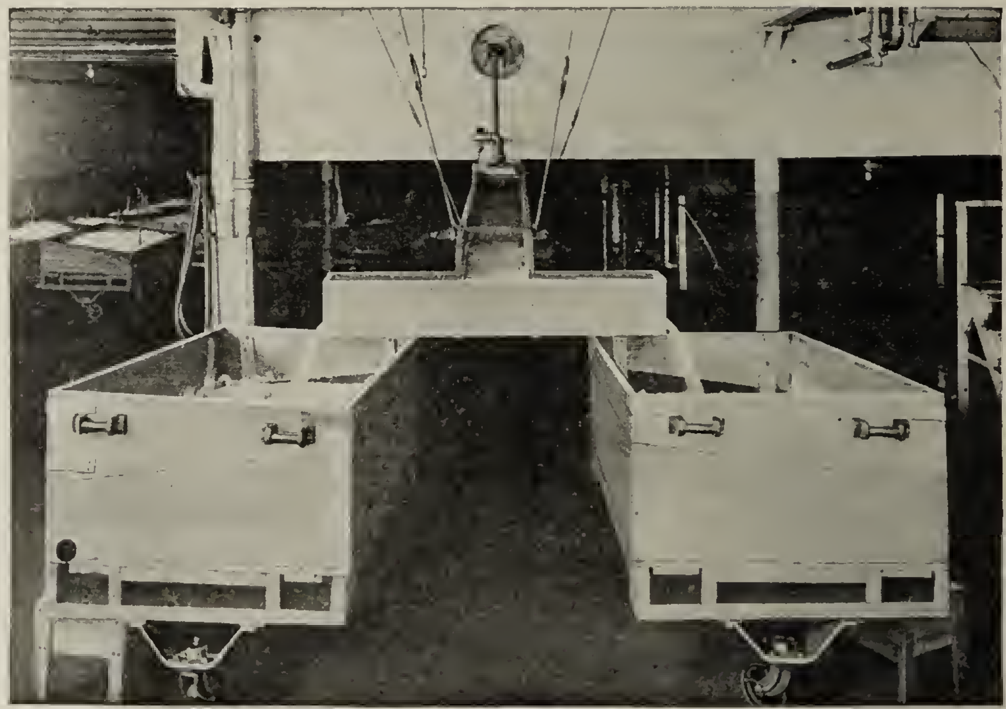
That the dairy industry is indispensible to the welfare of the country is admitted by practically everyone, margarine men included, but that its life is threatened by the manufacture and sale of margarines is absolutely contrary to all the evidence, and that the dairy men need to spend so much money and effort in the attempts to tear down the margarine business seems nothing short of foolish in the face of the facts.

Give to any other group of food manufacturers a reputation for their product created by thousands of years of use; a market in which the demand is and has for years been far in excess of their ability to satisfy and a future with unlimited possibilities and it is safe to say that they would not spend one dollar or one moment's time in fighting for legislation that would hamper a substitute. All their energies would be devoted to increasing the supply and improving its quality and this is the only logical line of action for the dairy men.

When I say restrictive legislation I do not mean the laws that are passed to insure the public against impure or unwholesome food. I refer to the laws passed to restrict the manufacture and hamper the sale of a food that is admitted to be wholesome and produced under sanitary conditions. I do not include in restrictive legislation the laws that would compel a manufacturer or distributor to label and sell his product for just what it is but I do mean the laws that place a tax on one kind of a class of products and leaves others of the same class free; laws that place unwarranted restrictions around the sale of one kind while others are permitted a free and unhampered market.

But what has been the nature of the fight which the dairy interests have conducted against oleo-margarines and margarines made from other than oleo oils?

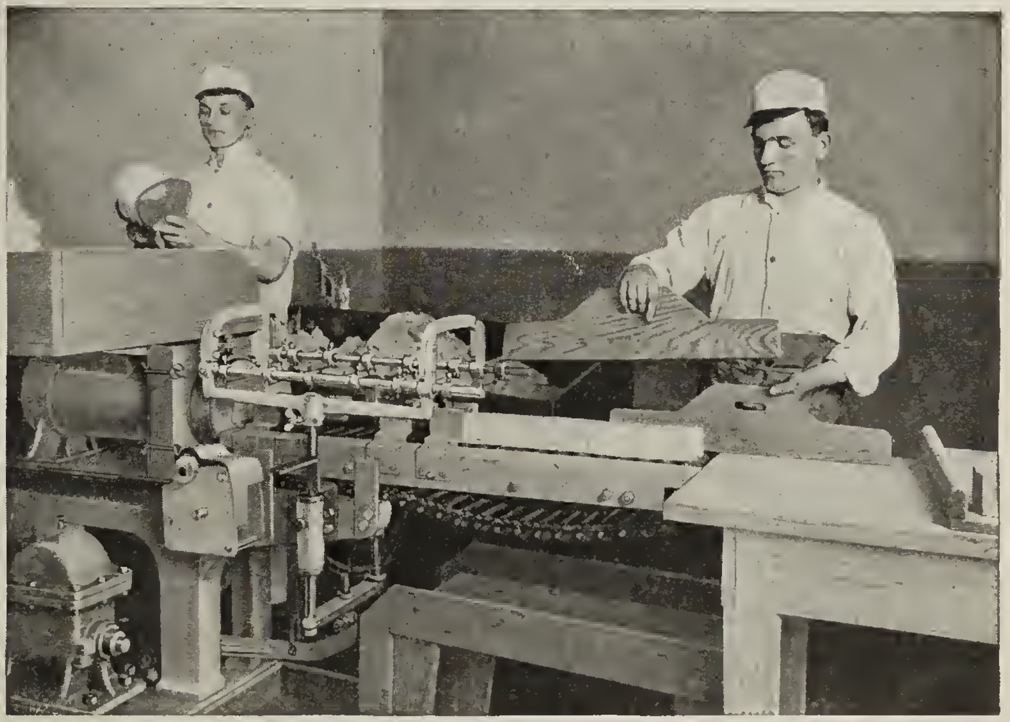
Later on I will review the fight in detail in the various states but for the present let us just take up the principal features of the national campaign that has been waged ever since margarines came into existence.


After Churning the Margarine Is Run in Clear, Cold Water to the Collection Vats

The early stages of warfare show a crudeness and primitiveness of methods that corresponded with the knowledge or lack of knowledge which the fighters of the early margarine period had of the product which they opposed.

When oleo-margarine first made its appearance the public in general as well as the dairymen looked upon it with suspicion and stories were told in all quarters about the filthiness of the product. The manufacturers were accused of everything bad—even to using the fat of cats and dogs in its production. But of course this kind of propaganda never got very far. It was too raw to be taken as a steady diet and the public soon learned what the ingredients were that entered into the making of margarines. Then the attack, not directed in its early days by a perfect working organization such as is behind it today, attempted to establish the fact that all places where oleo-margarine was made were conducted in an unsanitary fashion, that unclean foreigners were employed who mixed the ingredients in all sorts of unsanitary receptacles. If there was any truth to these charges it is to the credit of the oleo manufacturers that they quickly cleaned up their places of manufacture and threw them open to the public gaze and the charge died out in a large measure.

**Wooden Shovels Are Used in Placing the Margarine in the Mixers.**



**Weighing and Forming Molds Is Accomplished Without the Hands Touching the Product**

By 1885 the dairy owners had begun to get their organization perfected and the fight against margarines began to take on the aspect of a real, thoroughly planned campaign. In that year many of the states passed laws which were designed to suppress the growing margarine industry, some of these laws still live on the statute books but many of them died because they were too ludicrous to survive as serious attempts at law making.

In 1886 the fight got into the capitol at Washington and Congress passed a law which imposed a tax of two cents a pound on oleo-margarine and established a special system of inspection of the margarine plants. This law was backed by the dairy interests and it was undoubtedly passed by their influence. But the effect was hardly what they had expected. There was a roar-back to it that they had never looked for and instead of lessening the sale of the product it gave it the assurance in the public mind of being pure because it was government inspected and the success of the product was assured from the moment of the passage of the law.

Then came the period of fraud in the sale of margarine. The manufacturers of the product—some of them—borrowed some of the coloring matter which dairymen had learned to use so expertly in making butter yellow twelve months a year when the product is normally a deep yellow only two or three months a year, and they began to sell oleo that was exactly the color of butter for butter, getting the higher price which butter commanded.

Some too ardent oleo-margarine men will tell you that the tax on their product was the thing that started the fraudulent work but I hardly think that this contention is borne out. The times were at fault. If we look over the whole food field we find that crookedness was a crime only when the crooked one was discovered. In that day when you bought a pound of sugar you paid for sugar but got part sugar and part a substance that could not be detected by any but the experts but which was not sugar and was not even food. Bakers made more money per loaf than they should have made by selling bread which contained cheap, unwholesome ingredients which they dared not tell the public about and a man who could sell a diseased cow to a slaughterer without being caught or who could dispose of a wind-broken nag to his brother deacon as a Maud S. was considered clever and not crooked. The business of being crooked was not monopolized by the margarine men of that day. Even the dairy men who cried loudest against the frauds of their competitors were often guilty of selling spoiled cream and dairy products that had long before passed beyond the bounds of pure, unspoiled food. Such practices were not taken seriously.

During this period the sales of oleo-margarine as such increased immensely in spite of the tax and the illicit sale of margarine as butter was probably just as great.

Then the dairy men made what appears at this writing another tactical error and instead of crying for jail sentences for the oleo moonshiners and strict supervisory laws that would detect such frauds they again went to Congress with a plea for a bigger tax against the product and especially a tax against the coloring of oleo so that it would look like butter. Congress again took the dairyman's word for it and passed the Grout Bill which took effect in 1902. This bill retained the special tax of $600 per year on manufacturers, $480 per year on wholesalers and $48 per year on retailers of oleo which was in the 1886 bill and it levied a double system of taxation in addition, namely ten cents a pound on colored oleo and reduced the tax on the uncolored product to one-fourth of a cent a pound.

While the tax of two cents a pound flat on oleo which was levied in 1886 hardly furnished sufficient incentive for fraud the tax of ten cents per pound on colored oleo certainly had this effect. In 1901 it was estimated that the sales of oleo as such were 126,316,427 pounds. In 1911 the sales of oleo-margarine as such had dropped to 92,000,000 pounds. But it is estimated that there was really about 500,000,000 pounds of the product made and disposed of.

In 1911 Royal Cabal, commissioner of Internal Revenue of the United States, reported that in his opinion the double system of taxation was corrupting grocers and working a fraud against the people and the United States government.

## Fraudulent Dealers

It is an established fact that during this period most of the illicit dealing in margarine was indulged in by the smaller distributors who would purchase a quantity of the product and pay oleo-margarine wholesale price for it. Then they would purchase some butter coloring matter and by a few minutes' work in their basement with the two products they had increased their possible profit by from ten to twenty cents according to the market value of genuine butter.

The double standard of taxation which has been universally condemned still exists as a monument to the blindness of the dairymen who have fought so long and so hard against a product which has steadily prospered in spite of them.

In view of the fact that most of the fraudulent sales of oleo or other margarines have ceased due to the activities of the food control officials many of whom are former dairy men and no lovers of margarine; and to the activities of the manufacturers who know that every pound of margarine that is fraudulently sold for butter is a shot at their business, it would almost seem that the dairy lobby insists upon a continuation of the double tax system so that enough fraud will be continued to furnish them with this "fraud" argument against margarine being permitted the freedom of the market.

In England, Holland, Belgium, Norway, Germany and Australia and some other countries artificially colored margarine is permitted to be sold free from other than the usual taxes and in these countries there is much less heard about the fraudulent sale of this product than in America. In fact in England, the largest consumer of margarine and also one of the largest if not the largest consumers of butter, there is practically no fraud at all in the matter of the margarines being sold for butter.

Automatic Carriers Take the Product to the Wrappers

In England margarine is recognized as the poor man's spread and practically all of the 300,000,000 pounds sold in that small island country is consumed by the poorer classes. England thinks so well of this product that about half of the total amount consumed there is imported from other countries. One factory in England makes most of the other half.

Talks with officials of the National Dairy Union and other advocates of the dairy side of this contest disclose the fact the opposition to margarines is based on two points, one that the product is still being fraudulently sold and would be more so if it were not for the special tax of ten cents on the colored product and the other is based on a scientific theory which has only recently come into existence. No charges that the product is impure, unsanitary or unwholesome are made.

The scientific theory referred to and which the dairy lobby has used so persistently in the legislative halls of practically every state in the Union is the theory of vitamines. Without going into a technical discussion of this subject, roughly outlined it is as follows:

Science has discovered that there are apparently two elements in food aside from the proteins, carbohydrates, mineral salts, etc., which play a most important part in the mental and physical development of the human race. These elements have as yet not been isolated and their character exactly defined by science and for want of a better name they are called Fat Soluble A and Water Soluble B. Dr. E. V. McCullom of Johns Hopkins University has carried the feeding experiments by which the existence of these elements was determined perhaps to a further extent than any other scientists of the present time and his name is continually used by the dairy lobbyists.

By a long series of feeding experiments, Dr. McCullom has discovered that milk, eggs, unpolished rice and green leaf foods contain the greatest number of these elements but that a number of other articles of food contain them to a lesser degree. His experiments have proven that an animal fed on rations that are perfectly balanced as to the chemically known food elements may die, or its growth be stunted; or it will become paralyzed and blind and its offspring be puny and unhealthfull provided the diet does not contain the foods which have the two

(Continued on page 40)

# The Development of Various Systems of Dehydration

## In This Article the Tunnel, Kiln, Vacuum and Special Methods of Drying Food are Described and Their Weakness Pointed Out

*Written for the American Food Journal by an Official of the Department of Agriculture.*

THE preservation of foods by drying was tremendously stimulated by the deeper study of food problems that became necessary during the four and a half years when the greater part of the civilized world was at war and, inasmuch as the United States was the storehouse from which the armies and, in large measure, the civilian populations of Europe, drew their rations, drying has become an industry in this country. As yet this industry is in its infancy, but it has made a substantial beginning.

There are now in this country probably twenty-five small plants operating on dehydrated vegetables. Several methods are in use, but in all the fundamental principle is the same, namely, to remove the excess of water so as to obtain a product which will keep for a long period of time, which will not undergo spoilage as a result of microbic action or other form of chemical change, and which will conserve the food value of the materials intact. The methods now in use may be classified as follows:

### The Tunnel System

The tunnel systems—These, as the name would imply, consist of long chambers or tunnels into which the prepared vegetables are introduced on screens or racks and through which a strong current of dry air is blown. There are a number of slight modifications in the arrangements of the screens and the method of heating and driving the air, but in the majority of cases the heat is supplied by extensive coils of steam pipe, and the air is forced through by means of powerful fans. In some instances the racks holding the vegetables are placed on trucks which run on tracks, so that the material is introduced at one end and delivered in dry form from the other end. In other cases the tunnels have side entrances and the trays are inserted and removed by hand. The weak point of the tunnel systems lies in the fact that there is no absolute control of the physical conditions and as a result many vegetables, especially potatoes, are likely to be overheated and scorched, and more or less broken down in their cellular structure.

### The Kiln

The second type of plant may be described as kilns. These are based on the construction of the hop kilns as employed in California and Oregon and to some extent in New York State for the drying of hops and the evaporation of apples. They consist essentially of square chambers with sloping roofs and perforated floors, heated from below by means of stoves or furnaces. The vegetables to be dried are spread on the floor to a depth of 4 to 6 inches and the hot air from the stove passes up through the layer, taking away the moisture, which is conducted from the chamber through a ventilator in the roof. The material on the floor must be stirred up, or turned over, from time to time, and this is ordinarily accomplished by men with shovels. The products of the kilns are rather varied in character. Some are quite satisfactory, while on the other hand others are very much overheated, or may go to the other extreme and be underdried. A lack of uniformity is therefore likely to be found in products of this method.

### Vacuum Process

A third type is the vacuum process, which consists of closed chambers with large numbers of shelves heated by steam and with a greatly reduced atmospheric pressure. By the constant application of the vacuum to the process the water vapor is removed and the material dehydrated. This process gives excellent results for many kinds of products, but is rather severe and tends to break down the cellular structure.

Special types of chambers or machines have been invented and are now in use in a number of places, the air passing through the chamber being conditioned so as to bring about a carefully regulated drying. Other special types of machines force the rapidity of drying, but have not the careful regulation which seems to be essential in the preparation of the finest products. As a result, therefore, it may be stated that only in those processes where we have the practically perfect control of temperature, humidity, and rate of air flow do we get products which will retain their color, appearance, and flavor, and when soaked in water will return to approximately the normal appearance. If the temperature is too high, over-cooking takes place. If it is too low the evaporation is insufficient and changes are likely to follow in the partially dried material. If it is too dry and too hot destruction of the cellular structure is practically sure to follow. It is seen, therefore, that modern dehydration means the scientific control and coordination of the three factors of air, temperature, and moisture.

### Advantages of Dehydration

The advantages of dehydration are almost too obvious to require extended statement. Most evident of all is the loss in weight. All the vegetables in common use contain from 65 to 95 per cent of water. The dehydrated product made from these vegetables should contain from 5 to 10 per cent of water. There is, therefore, a very large reduction in weight and consequent saving in the transportation charges, which in general are based upon weight.

Similarly there is a loss in bulk amounting to from 50 to 80 per cent of the bulk of the raw material. The importance of these factors to railroads in times of congestion such as we have just passed through, or to ships in overseas service, are very evident. In the mere matter of sending food to our armies abroad.

one ship could easily carry the vegetable requirements which in the green or fresh state would take from 10 to 25 ships.

From the standpoint of agriculture the greatest advantage of dehydration undoubtedly appears in the stabilization of crops and the conservation of materials. Under the present conditions we are confronted by either a feast or a famine. If we consider potatoes as the most typical root crop, it is a matter of experience that a year in which we get a very large harvest and consequently low prices is likely to be followed by a lean year with a small crop and high prices. This pendulum swing goes on decade after decade. With dehydration the excess of the years of great yield can be stored up and made available in the following year when prices are higher and the crop much smaller. After a short time this would tend to equalize the amount of planting, and, other things being equal, to give us year by year a sufficient quantity of food materials at normal prices.

### Another Advantage

The second great advantage is in the conservation of food materials. It is estimated that over 50 per cent of the fruits and vegetables grown in this country now never reach the consumer, as a result of poor transportation facilities, irregularities in marketing, or other causes. By making use of the process of dehydration, the second-quality materials could be preserved by drying and made available for human food and not allowed to rot and waste. Again, taking the potato as typical, those of class 2 and 3 (culls) could be used for the manufacture of dehydrated potato and potato flour, a product which has not yet received in this country the attention which it deserves, but which is now being manufactured to some extent in a number of different parts of the country.

### Important Factor

A third factor of importance in the relation of dehydration to agriculture lies in the fact that a better diversity of crops can be secured, and as a result of this there will be a good variety of the vegetables which are the equivalent of fresh materials available to poor and rich throughout the year. This means practically better feeding for the people at large, evening up of prices, and the prevention of famine or great food shortage as a result of poor crops in any particular location.

The work in commercial dehydration is still in its early stages in this country. There are many problems yet to be determined. We are now attempting to find out which processes are best adapted for general use, whether dehydrated products are deficient in any of the nutritive principles which they should possess and which the fresh vegetables themselves possess, to work out satisfactory methods of storage and transportation by selecting the best types of containers, and to acquaint the consumer, especially in the cities, with the great advantages which are likely to be gained by the use of dehydrated products.

### Success Assured

Obviously, dehydration will succeed commercially only in those regions with abundant crops which can be contracted for at planting for a guaranteed price, or in centers having a short haul from the point of production and suitable shipping facilities. If, however, the problem is met scientifically there appears no reason to doubt that a demand will be created and that dehydration will become, as canning has, a great industry of immense importance to agriculture, with the further advantage that no tin plate will be required and that the consumer will purchase practically nothing but food material, whereas in the purchase of canned foods he is buying and the railroads are shipping enormous quantities of water.

In order to insure a successful industry, dehydrated products must have the quality which will make them the practical equivalent of the fresh materials. They must be handled in a sanitary manner, be put up in suitable packages, and sold at a price which will make them throughout the year comparable with fresh vegetables. We believe this can be done, and that dehydration will become the servant of agriculture as well as of the dwellers of the great cities.

Dehydration, as a large scale commercial enterprise, is new, but the process is many hundreds of years old. Even the revival did not begin, strictly speaking, with the world war. The rush of miners to the Klondike, with the resultant necessity of getting vegetables to them in some form, resulted in the establishment of some drying plants on the Pacific Coast. The English, during the Boer war, practiced dehydration on a considerable scale. One manufacturer of a dehydrated soup mixture intended for the soldiers in the Boer war was left with several thousand pounds of it on his hands at the close of the war. It was stored in barrels where it remained until 1914 when it was inspected, found to be in perfect condition and was utilized in the preparation of soups for British soldiers in France.

Following the Boer war, some small factories were established in the United States but, while the soundness of the principle was demonstrated, no great progress was made until after the beginning of the great war. With our own entrance into the war came the question of supplying these materials to our own forces. At first there was objection. Then came a willingness to purchase a small amount as an emergency supply of food materials, and finally, during the last year of the war, there was a demand for large quantities of these dried vegetables to take the place of the fresh vegetables which could not be obtained in sufficient quantity in England and France. Many thousand tons of dried vegetables and soup mixtures were purchased for the use of the American armies.

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## Dr. Wagner Goes With New Company

DR. T. B. WAGNER, long and prominently connected with the Corn Products Industry, has resigned his office with the Corn Products Refining Company and has become associated with the U. S. Food Products Corporation, which is the new name of the company formerly known as the Distillers Security Corporation.

At the annual meeting of the latter corporation held in Jersey City on March 19th, Dr. Wagner was elected a director and vice-president of the corporation, in charge of all its new manufactures, under way and contemplated. Dr. Wagner will retain headquarters in New York City in the offices of the corporation at 40 Exchange Place.

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The method of pressing American cottonseed oil is typical of the way hot-pressed oils are made, and the machinery and processes used in the production of this oil in the United States are superior to those of any other country. Plants of American design and construction are in operation in Europe, Asia Minor, India, and China.

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Thrift is wise spending, sane saving, and safe investment. Buy W. S. S.

# Sardine Packing—The Oldest Canned Sea Food Industry

## Maine Fishermen Have Long Harvested the Seas For the Fish That Is Known Throughout the World

*By H. M. Loomis*

*Director of Sardine Inspection, Natoinal Canners' Association.*

THE Maine sardine industry is one of the oldest engaged in canning sea foods in this country. At the present time sixty factories are scattered along the coast from Portland to Eastport; the annual output is about two hundred and fifty million cans; and about fifteen thousand persons secure their livelihood in connection with this industry.

The center of the industry is the beautiful Passamaquoddy Bay region, on the boundary line between eastern Maine and New Brunswick. The towns of Eastport and Lubec, Maine, are the principal centers of the industry, and about one-half of all the sardine factories in the business are located in these two cities, or on this bay. Passamaquoddy Bay is a small branch of the great Bay of Fundy with its tremendous rise and fall of tide, which averages about eighteen feet at Eastport and reaches at the time of highest tide to as much as twenty-five feet. This great rise and fall of tide makes the bay an ideal location for food factories from a sanitary standpoint.

A large proportion of the fish packed in eastern Maine are taken in Canadian waters and sold by the Canadian fishermen to American boatmen, who bring them direct to the factories by which they are employed. The run of fish is quite irregular during the canning season, and when fish are scarce, the competition among the boatmen to secure fish is very keen.

### Caught in Canadian Water

On account of the strong tides, it is not possible to take any great amount of fish in these waters by means of nets or seines. Most of the fish are taken in large traps known as weirs, which are more or less circular enclosures constructed of upright poles. The spaces between the poles are filled with boughs or netting. A long line of poles and brush of similar construction runs from the shore to the narrow opening of this weir so that the fish are diverted from their course into the mouth of the weir.

The fish usually enter the weir about high water, and are caught in the following manner: The inside of the weir is encircled with a seine or net, eight or ten feet wide and several hundred feet long, along one edge of which cork floats are attached. The two ends of the seine are then drawn together and hauled in gradually until the fish are confined in a small space, from which they are dipped with a large hand dip net. The sardine boats are driven by power, and carry from 10,000 to 100,000 pounds of fish. The average time taken for bringing fish from the fishermen to the factories is about four hours.

Sardine Boat

The fish die almost immediately after they are taken out of the water. When fish are being transferred to the sardine boats, salt is continually sprinkled over the fish to keep them firm and sound. The fish are comparatively lean in the spring as food is scarce during the winter. As their food grows more plentiful, they become fatter and, while fatter fish are generally considered better in flavor, they are more tender and difficult to handle if a fancy product is desired.

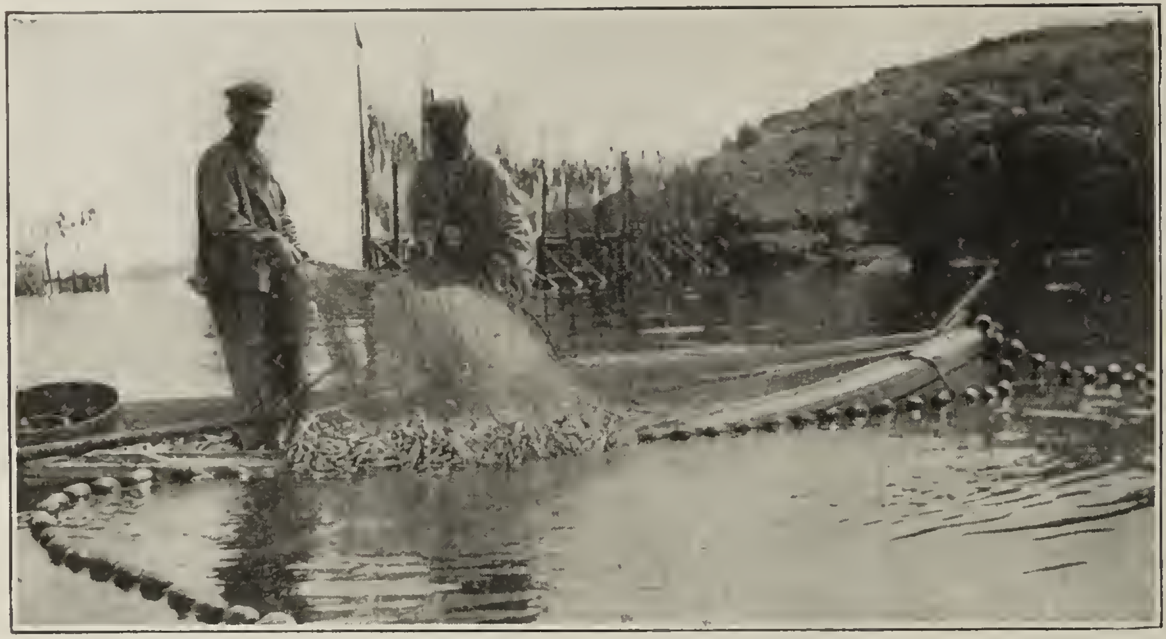
After arrival at the factory, the load of fish is hoisted to the factory wharf, where they are emptied into a sluce and carried by running water into the "pickle-shed." There they are kept about one hour in a strong brine to harden the fish and give them the desired flavor.

### Fish Are Cooked

The fish are then spread either by machine or by hand on woven wire trays or "flakes," as they are called. These flakes are placed in racks holding twenty-five to fifty flakes each, and are run into small rooms where the fish are cooked a few minutes with live steam. The fish are then run into a drying-room, where excess moisture is removed by passing heated air over them. After they are cooled they are ready to pack.

The heads and viscera of larger fish are generally removed in the "pickle-shed." In case of small fish the heads are removed at the packing-tables,—packing being done by women, who arrange the fish in the cans. The cans are then filled automatically with oil, and are sealed by automatic sealing machines. The contents of the cans are sterilized by immersing them in a tank of boiling water for about two hours. The cans are then cleaned and packed for shipment.

The majority of Maine sardines are packed in oil, according to the process described above, but sardines in oil are also prepared by first drying and then frying them in hot oil, usually cottonseed or peanut oil; or by drying and smoking, after which they are usually packed in oil. A very considerable proportion of the fish are packed as sardines in mustard sauce or tomato sauce.


Dipping the Fish from the Weirs

Most of the packers felt that some form of regulation in the industry was necessary to keep up a proper standard of quality, and to see that sanitary conditions around the factory and the quality of the raw material were such as to meet the strict requirements of State and Federal laws.

These packers decided to ask the National Canners' Association, which is an organization devoted to the improvement of the canned food industry, and to increasing the demand for canned foods, to inaugurate a system of voluntary inspection for the above purposes.

That association was asked to appoint a director of inspection, who would be responsible only to the association, and not to the sardine packers; this director to have authority to appoint necessary inspectors and to draw up rules and regulations for carrying on the inspection with the approval of the National Canners' Association. The expenses of the inspection are borne by an assessment on each case of cans purchased from the can manufacturer, paid direct to the National Canners' Association.

The duties of inspectors are (1) to keep track of the sanitary conditions in and about the factories and make recommendations for improvement where necessary and (2) to watch the packing process from the time the fish reach the wharf until they are sealed in the cans and ready for shipment, and see that only sound fish are used, and that they are put up in a satisfactory manner. To guide the inspectors in their work, the association has prepared a list of twenty sanitary factory requirements and seven rules covering the quality of fish and pack, and the inspector is instructed to see that these are lived up to in the factories under his inspection. For every case of goods packed in accordance with these rules and regulations, the inspector is authorized to issue a certificate of the association, signifying that the sardines have been inspected and packed in accordance with the association requirements. In case of failure to meet these requirements, the inspector refuses to issue certificates during the period or on the pack in question.

Drying Room of a Fish Cannery

The certificates are attached to the shipping cases and are a guaranty to the dealer and consumer that the goods are prepared in sanitary factories from clean, sound fish.

This inspection system has now been in effect for three years, and it is generally conceded that during that time there has been marked improvement in the sanitary conditions of the factories, in the condition of fish packed, and the average quality of the finished products.

It is only fair to say "average quality" because there have been a number of packers who have always maintained a high standard of quality for their goods even before the inspection was started.

Since this inspection was started in Maine, a similar system has been put into effect in connection with the California sardine industry and the fruit and vegetable canneries of southern California; and its value not only to the industry but also to the dealer and the consumer has been so generally recognized that it will probably be in effect in many other branches of the canning industry during the season of 1919.

During the past year, the entire sardine industry was operating under license by the U. S. Food Administration, and a number of rules and regulations were issued to insure correct measurement in the purchase or sale of fish, to prevent unnecessary waste of fish and to secure a sanitary product and a full can to the consumer.

The inspection force of the National Canners' Association was sworn in as deputies of the Food Administration to carry out their regulations, which proved of decided benefit to the industry, so that a movement is now under way to incorporate many of their regulations in the form of state laws.

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Corn syrup is a perfectly wholesome food. It contains glucose and glucose is a wholesome food. It can well be used instead of so much cane or beet sugar.

# The Economic and Dietetic Value of Canned Fruits

## This Description of Latest Methods of Canning Fruits Furnishes a Lesson to Dietitians and Teachers

*By Eleanor Lee Wright*

**Eleanor Lee Wright**

SCIENCE has long since been the chief factor in placing the summer fruits in the winter pantry and is no longer a novelty. This in itself has economic value.

The processes used in commercial canning are interesting and are not unlike the methods used in a household. There is the advantage, however, of equipment and superior quality made possible by advantages of careful, skillful selection of the fruits used.

There is a wide variety of canned fruits now found on the market. These are chiefly: peaches, pears, apples, apricots, cherries, egg plums, green gage plums, white grapes, blackberries, blueberries, red raspberries, black raspberries, strawberries, loganberries, gooseberries and pineapple.

### Selection Necessary

Most of the steps in the canning process are common to all fruits. These steps are essentially: selecting the fruits, scientific grading for the quality of the product, washing and preparing, filling the cans, processing in the way deemed best by the individual manufacturer, cooling, labelling and packing for shipment.

Factories are located near the source of the supply because the raw fruits used in canning must be in first-class condition in order to obtain the highest quality that is possible. It is much easier to transport labor to the locality in which the fruit is grown than it is to ship the fruit a long distance without injuring it after it is picked. Fresh fruits found in markets in large cities are not considered suitable for high-grade canning. Canning fruit in the vicinity where grown also eliminates waste by spoilage, and evaporation which may occur in transportation.

Fruit, like flowers, wither after plucking. The longer fruit waits until it is cooked and canned, the quicker it loses its quality and flavor. Fruit must be cooked and canned just where it is picked, to be at its best when you open the can and serve it. Fruit selected for canning is that which is considered best by the individual manufacturer as regards soil and climatic conditions where the fruit is grown as well as the preference for variety. The fruit must also reach the proper stage of maturity before picking for canning purposes.

### Careful Grading

Every step of grading is carefully followed until the fruit is placed in the can. By the term grading uniformity of general appearance, size, texture, and color is meant. The fruit is washed very thoroughly, in fact, better than is possible in the kitchen in a home. The washing machines are great troughs in which dirt is removed by currents and sprays of water. This is done several times to make certain that the fruit is thoroughly cleaned. If the fruit is to be peeled, the peeling is done by process after it is thoroughly washed. Fruit is very carefully graded for size.

You who teach the art of cookery are thoroughly familiar with the term "blanching." A few fruits are blanched, such as cherries and peaches. This process is not used to whiten the product but to make them pack in the cans more easily. It also gives the fruit a more uniform color.

Some fruits are packed by hand rather than by machinery because they must be placed in the cans in layers. This is also necessary to obtain the correct weight and number of pieces of fruit for the size of the can in which they are packed. Then, too, the fruit is less likely to be crushed.

The value of syrup in canning fruits is well known. One manufacturer uses an extra double heavy sugar syrup in preparing his product and the syrup is considered in the grading of the final product. Syrup also adds to the palatability of the fruits for, thus prepared, they are more succulent and retain their natural flavor, goodness and sweetness. Of course the density of the syrup depends primarily upon the raw fruit.

After filling, the cans of fruit are gradually heated. All the air is driven out. This is called exhausting. All of the sealing process is done by machinery. The final sterilizing is accomplished either in retorts or hot water baths. The temperature depends entirely upon the fruit and is controlled by a device for the purpose.

After the fruit is thus properly sterilized the cans are cooled. This process varies depending upon the fruit and the result desired. In some instances the cans are sprayed with cold water while in others they are cooled in the retort by running in cold water. After this the cans are labelled and packed for shipping.

The Food and Drug Act has made canned fruits, as well as other canned foods, safe. It provides against any adulteration or use of material unfit for human consumption. If saccharin or glucose or any artificial coloring matter is used, the fact must be stated on the label. This act also regulates the sanitary conditions of the factory.

Although the foregoing general processes are worth knowing, it is also interesting to learn something of each special fruit.

Canned peaches are considered the most popular of all canned fruits. The reason for this, no doubt, is because they please both the eye and the palate, and they keep well. The very fact that the peach is an annual fruit only—that the tree bears fruit but once a year—bears out the economic value of the canned product. Some authorities claim that the peach originated in China, while others give the credit of its origin to Persia and Northern India. It is said that the peach was introduced into Europe by way of Persia which may explain the latter theory as to its origin. Nowadays it is cultivated throughout the world where climatic conditions are favorable. In this country it has been grown more successfully in the North than in the South for the buds appear so early in the South that they are killed by the spring frosts. The crops cannot, therefore, be depended upon.

The states in which peaches are grown especially are: Delaware, Maryland, New Jersey, California, Texas, Arkansas, and Georgia; in fact they are grown to a certain extent in practically every state in the union.

## The Peach

The peach is popularly divided into three groups: the yellow freestone; the yellow cling; and the white cling. Manufacturers differ in preference for variety. Most of the varieties of the peach grown in this country were named for the originator of the variety. Many of these have a delicious flavor and fine texture but all are not suitable for canning purposes. The best peach for canning is the Phillips Yellow Cling. This preference is given because of the fine texture, even color and delicious flavor and adaptability to canning purposes. It is grown in the San Joaquin and Santa Clara valleys of California. The peach is canned both in slices and halves, being packed in the locality where it is grown. Ripe, plump peaches without flaw or bruise, are carefully selected for size, color and texture, gently handled and cooked exactly right. The peaches prior to cooking are split, pitted and peeled. They are canned at once so that no particle of their appetizing or delicate flavor is lost. Sliced peaches are prepared from the same carefully selected fruits as the halves.

Restaurants, hotels and other institutions prefer the high priced canned fruits because they obtain more servings in a can. This can be readily understood when it is realized that only one of the halves of the peaches makes a serving, while in the cheaper product the halves are smaller and it is necessary to serve two or three pieces in order to make the serving adequate.

Peaches are usually packed in cans whose sizes are No. 1, No. 2, No. 3, and No. 10.

The canned pineapple has won second place in public favor. Although this fruit originated in tropical America, it is now cultivated throughout the tropical and semi-tropical world, growing in Florida, Porto Rico, Central America and Malay Peninsula, but chiefly in Hawaii. The name "pineapple" is said to have been applied to the fruit because its shape and external appearance are similar to the cone of the pine tree.

The pineapple plant is low, almost a bush, having sharp-pointed, serrated leaves. Each plant bears but one pineapple. The fact that drought is the only cause of a crop failure evidences the reason for the dependability of the fruit for the market.

When properly canned the pineapple retains its delicious flavor. The Hawaiian pineapple has recently become the most popular of all varieties. This pineapple is yellow instead of white, because it is fully ripened on the plant in Hawaiian sunshine, and then canned right in the midst of the plantation. This variety of pineapple is also very tender and full of real pineapple flavor. Artificially ripened fruit can usually be detected by the white color, coarse fibres and toughness as well as lack of flavor.

## Peeling Process

Some manufacturers use machinery for peeling and coring the pineapple while others have this work done by hand. In any case the factory employes wear rubber gloves not only for sanitary reasons but because the acidity of pineapples is so great that it eats the flesh. This, no doubt is one reason for the preference for the canned product, inasmuch as many people cannot assimilate the high acidity of the fresh fruit.

After the pineapple is cored and peeled it is sliced directly into the tin. This necessitates careful selection for size which is always considered among the various points necessary in high grade fruit. If by any chance, any of the juice escapes it is used in preparing the syrup for the fruit. Sometimes the fruit is placed in a perforated bucket on a basket and plunged first in hot water and then in cold.

The best grade of grated pineapple is prepared from carefully selected, clear fruit, free from "eyes" and cores and is put up in heavy syrup. Grated, crushed or shredded pineapple is merely the name applied to the style of preparation. This type of canned pineapple is generally used by confectioners. Canned pineapple is a wholesome, economical food which, when canned properly, will keep its goodness for years.

## The Apple

The apple belongs to the rose family in both fruit and flower. The cultivation of it started in prehistoric times, while today North America leads in its production. The fact that it blooms late, thus escaping spring frosts, makes the apple the most reliable of all fruits. The varieties of apples chiefly used for canning are Greenings and Baldwins grown in New York, which are firm, tart fall apples. For canning they are carefully graded, washed, peeled, quartered and cored. They are canned by the usual processes which have been discussed. The apple is packed to the greater extent in No. 10 cans although some are packed in No. 2½ and No. 3 cans. Those who purchase canned apples eliminate the waste of peeling, coring and the specks which are found in fresh apples in the average market. Besides time, labor and fuel are saved.

The pear is a deciduous fruit closely related to the apple (and rose) family. There is a wide variety of pears grown throughout the world but the one considered best for canning, grown in the United States, is the Bartlett, produced successfully in both New York and California, the New York variety being smaller, of finer fiber and more delicate flavor.

## The Pear

Pears are graded, hand peeled, carefully cored and halved, and are immediately dropped into water to keep them from discoloring, which is liable to occur rapidly when the fiber comes in contact with the air. The sirup used is lighter than that used in most fruits, but is not so light in a high quality product as to leave the fruit unpalatable. Pears are sterilized only long enough for them to keep and at the same time retain their good, white color. The fact that pears are sometimes pinkish is not due to any foreign matter, but simply a change brought about by overheating.

A near relative of the peach is the plum, whose history dates back to the beginning of the world. It will grow almost anywhere, and is produced in a myriad of varieties. The best known, however, are the

Green Gages, Egg Plums and Damson Plums. Many authorities credit the Pacific Coast beyond the Sierra Madre and Cascade mountains with the best varieties. Some manufacturers offer a pitted plum but the demand for this kind of canned plum is not so great as for the ones packed with the pit left in.

Closely related to the peach and the plum is the apricot, resembling the peach in appearance and color and the plum in acidity. It is said to have originated in Armenia. This conclusion was probably derived from its botanical name. Other authorities say that it originated in China and was carried into Europe by Alexander the Great.

### Aromatic Fruit

The apricot is particularly aromatic. Its "fragrant" flavor distinguishes it from all other fruits. Well selected, properly matured fruits used in a first class canned product are characterized by the color, size, texture and "fragrance" of flavor. All apricots are halved and pitted for canning purposes, the fancy grades being peeled. It is interesting to know that an "almond" oil is extracted from the pit in European countries; also that people of the Orient eat the kernels as we eat almonds.

Cherries are one of the most luscious of the small fruits and has been grafted and cultivated from the wild state until the perfect fruit grown today is the result. The cherry is classed in two types: the sour variety grown in New York—the Montmorenci is given the preference—and the sweet cherry of California, such as the Royal Ann. The sour red cherries are pitted for canning, while the Royal Ann and other sweet varieties are canned with the seeds left in, because the seed seems to give the fruit a desirable flavor. The fresh Royal Ann cherries have red cheeks which become brownish when cooked. The high esteem in which the cherry is held is evidenced in the Cherry Festival given yearly in Japan.

The story of the grape is very long and very interesting; one with which much romance has been made. At one time so much land in Italy was given up to vineyards that Emperor Domitian feared a grain famine and in 81 A. D. sent out an edict restricting its growth. It was also feared that the barbarians of the north would invade the country to get the fine wine produced there. In a sense, it would seem that history is repeating itself.

The grape is a deciduous, perennial fruit whose color is entirely in the outer skin. It may be red, yellow, purple, green or white. The white variety grown in California is the most suitable for canning, the larger sizes being used for the best quality product. They make an exceedingly wholesome and delicious dessert.

One of the most delicious and most popular of all berries are strawberries. Strawberries are selected for their firmness and size. The final product is graded for its color. Strawberries put up in water lose their color and flavor. The sirup should be heavy for thus it not only makes the berries more palatable but also more appealing to the eye.

The raspberry is a very popular canned fruit, the black and red varieties being used. The Cuthbert, grown in New York, is a large dark red berry selected by some food producers as the best variety for canning. The flavor is particularly rich. When judging either the black or red raspberry note the uniformity of size, firmness, good color and density of sirup.

Canned fruits produced by a reliable manufacturer are certain to have quality that is uniform and dependable.

### Lessons on Commercial Canned Fruits

I. After reading this article to the class the following questions may be asked:

(1) Why is fruit "blanched" for canning?

(2) What are the essential points in judging canned fruits?

(3) Why is it necessary to can fruits where they are grown in order to get the best quality? Has this economic value?

(4) Name the sizes of cans used in commercial canning.

   (a) Various students may be assigned to determine the number of serving obtained from various canned fruits of (1) poor quality and (2) best quality.

(5) Name the processes generally employed in commercial preparation of canned fruits.

(6) What points are considered by a reliable manufacturer in the selection of the raw fruit for canning?

(7) Is it a real economy to buy cheap grades of canned fruits? Why?

(8) From a dietetic standpoint, why are canned fruits many times given the preference to raw fruits?

II. Compare commercial and home canned fruits. Assign every two girls several fruits for comparison, using both high grade and cheap varieties of canned products.

Note the following points:

(1) Uniformity of product.
(2) Color of fruit.
(3) Texture.
(4) Flavor.
(5) Density of syrup.
(6) Shape and general appearance.
(7) Appeal to the eye; to the palate.
(8) Fresh fruit flavor.

III. If a housewife says that her family will eat canned fruit but not the syrup, how would you suggest that she use it?

IV. Which canned fruits would you especially advise for children?

V. How many ways can you suggest for serving?

1) Peaches.
2) Apples.
3) Pears.
4) Apricots.
5) Plums.
6) Raspberries.
7) Strawberries.
8) Royal Ann Cherries.
   a) Is fruit merely a dessert?
   b) In how many courses can it be served? How would you prepare it?

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## Packers' Export Plans Proceed

A meeting of packers interested in the formation of one of the provision export enterprises now under way was held in Chicago on the early part of this month, attended by a number of Middle West packers who are interested in this particular enterprise. This corporation is to be known as the United States Provision Export Company, and its plans include an active campaign for foreign business under the terms of the Webb law permitting combinations for this purpose. T. H. Powers, president of the Home Packing Company, Terre Haute, Ind., is the head of the temporary organization, and M. Mannheimer of the Evansville Packing Co., Evansville, Ind., is temporary secretary. Completion of the staff will be announced at an early date.

# Facts and Fallacies About Ptomain Poisons

WHENEVER distress or violent illness, accompanied by acute prostration, comes suddenly upon a healthy man he thinks of ptomains and lays his condition to something that he has eaten. His diagnosis may be correct, but if he is not wiser than most of his fellows the chances are that in hunting the cause of his illness he will place the blame on the wrong food. Ptomains are thought to be the products of bacterial growth and are formed only in the presence of considerable quantities of proteid substances. No proteids, no ptomains.

The term "ptomain" poisoning has become a cloak for ignorance. Jordan says that "ptomain poisoning is a convenient refuge from etiologic uncertainty."

In fact, any acute gastro intestinal attack resulting from a great variety of causes is apt to be called "ptomain" poisoning. Selmi, in 1873, first used the word "ptomain" to include the poisonous products of putrefaction which gave the reactions then looked on as characteristic of vegetable alkaloids. From the time of Selmi, when ptomains were regarded as animal alkaloids, our conception of these substances has changed markedly. The last attempt to give precision to the term was by Vaughan, who defined ptomains as intermediate cleavage products of protein decomposition.

## Long Search Made

Rosenau and his associates at Harvard have been searching in vain for the past year and a half for ptomains that might cause gastro-intestinal or other symptoms. Split products of protein putrefaction are readily isolated. Some of these products have physiologic activity, but none of them thus far has been demonstrated to be poisonous when taken by the mouth.

The so-called ptomains isolated and described by Selmi, Necki, Brieger, Schmiedeberg, Faust and Vaughn were usually obtained from putrid organic matter that has decomposed past the point at which it would be used as food. Furthermore, most of these substances were tested by injecting them subcutaneously or intravenously into animals. Many substances are poisonous when thus introduced parentarally, though they may be harmless by the mouth. Again, many of the so-called ptomains isolated and described have since been shown to contain impurities.

Chemists are now seldom confident of the purity of protein fractions, even when obtained in crystalline form. The chemical search for split protein products as the cause of "ptomain" poisoning has practically been abandoned. Most of these split products are amins, which are either not poisonous at all or no more so than their corresponding ammonia salts.

## Popular Belief

The chemical resemblance between muscarin and cholin has directed the work toward the phosphatids, but thus far this line of research has not helped solve the puzzle of "ptomain" poisoning. Chemists avoid the use of the word ptomain, for the reason that it lacks precision. This is a curious instance of the popular use of a technical term that sounds well, but means little. Only clinicians cling to it as a convenient refuge.

### Intemperate Eating—

**MANY temperance workers who proudly wear a white ribbon to show their allegiance to the forces fighting alcohol are themselves intemperate. While alcoholic liquors are in the front rank as life-shorteners, it is just as true that men who overeat dig their graves with their teeth.**

**The body needs a definite amount of food. If the diet is too limited partial starvation follows. If the diet is too heavy the excess food is eliminated at the expense of vital organs. Fortunately we can take care of a surplus better than we can do without sufficient food.**

**But surplus food does not mean gluttony, and the wise diner is he who, while eating freely of the good things on his table, stops when he has had enough. The vigorous worker rarely overeats, but men and women past middle life frequently fail to realize that they require less food as they become less active and make of the dinner table a god of intemperance.**

Ptomain is a term for chemical substances of uncertain origin, unknown nature and doubtful existence.

Ptomain poisoning, whatever it is, may follow the eating of chopped meats, never of canned tomatoes. Ptomains may be encountered in old, refrozen ice cream. They are absent in fresh milk or cream. They may be met in cheese, but they are never found in candy. The most serious epidemics of food poisoning usually occur at picnics, neighborhood parties or celebrations where food is served in large quantities, usually cold, and from stock prepared a day or so before. Chicken salad and veal loaf are prized picnic food. They are also the delight of bacteria that produces ptomains. If acute food poisoning follows the eating of what was thought an excellent chicken salad, it is quite unnecessary to ask the chemist for an analysis. The chicken was undoubtedly chopped the day before and kept over night in the refrigerator when the ice supply was low, and the temperature so high that bacteria grew among the chopped meat particles as readily as in an incubator.

Canned goods are not ptomain producers. They do not contain the right kind of food for bacteria. Cold storage does not develop ptomain, though poor storage of nitrogenous foods may.

The more food poisoning is investigated the less confident chemists are that the so-called ptomains are the responsible agents. This information, whether it be fact or theory, does not help the sufferer, nor has it as yet reduced the number of fatalities.

Although canned foods, aside from canned meats, are no longer looked upon with suspicion and up-to-date physicians have learned to discriminate between true food poisoning and acute indigestion, the public is little better able to protect itself against the serious illness which comes from eating unknown food poisons than it was in the days when chemists were confident that they had found the disturber in the ptomain. The best we can do to avoid food poisoning is to lay down certain rules of eating. These rules, simplified, are as follows:

*Eat meats fresh from the fire instead of stale from the ice box.*

*Avoid chopped meats unless you know they are fresh.*

*Beware of meats that have stood in a warm box or room for a day after preparation.*

*Never eat meat salads unless they are freshly prepared and served.*

*When you fall a victim to ptomains get a doctor, you need one.*

H. E. B.

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Capitalize yourself and your future. Buy W. S. S.

# The Value of the Peanut Proteins

## Analysis Shows That They Contain All the Amino Acids Essential To Growth

*By Carl O. Johns,*

*Protein Investigation Laboratory, Bureau of Chemistry, Department of Agriculture, Washington.*

A COMPLETE diet is one on which an animal will grow normally when given no other food except water to drink. Such a diet must contain protein, fat, carbohydrate, a suitable mixture of salts and certain food accessories which are commonly known as vitamines. This article deals only with the *proteins,* which are the *muscle-building* substances in foods.

About three years ago a laboratory was established by the Bureau of Chemistry of the United States Department of Agriculture to analyze proteins and determine their nutritive value. Considerable research along this line had been done previously by the Connecticut Agricultural Experiment Station in this country and by various scientific institutions abroad. This work gave a new insight into the composition of proteins and showed why proteins differ so greatly in their nutritive values. A complete analysis of a protein is a tedious operation which requires several months to complete, and the methods employed are far from perfect at the present time. While it has not been possible to determine quantitatively all of the different constituents in proteins, the analyses of proteins which have been made throw considerable light on their nutritive value.

### Digestive Process

Proteins are broken down by digestion into a series of about 16 definite chemical compounds which are known as amino acids. These are absorbed from the digestive tracts of animals by the blood vessels and are used in building up the different kinds of proteins needed by the body.

The value of a protein depends upon the relative quantities of the various amino acids which it gives when digested. Some proteins lack certain of the amino acids which are absolutely necessary for growth and will not even support life for any length of time. Others contain small quantities of the necessary amino acids in such proportions that they will serve to maintain the weight of the animal, but produce very little growth. Still other proteins, such as those in milk and meat and other animal products, as well as in certain seeds, such as the peanut and the soy bean, will give all the necessary amino acids in such proportions that normal growth can be obtained. Some of the proteins in our different cereal grains contain very small quantities of the essential amino acids, and it is for this reason that they have to be supplemented by various concentrates which contain the missing amino acids in considerable quantity. From this it is evident that the percentage of nitrogen multiplied by the factor 6.25, while giving approximately the percentage of protein in a diet, does not show the *quality* of the protein nor its *nutritive* value.

### Proteins Analyzed

The proteins of the peanut have been investigated by the Bureau of Chemistry, and the principal protein in this seed has been analyzed completely and found to contain *all* the amino acids which are essential for growth.

The nutritive value of a protein may be ascertained by properly planned feeding experiments. Small animals are used for such work, because the use of large animals is very costly and the results are obtained too slowly. The animal commonly used is the white rat. This grows to its full size in less than a year, and has been studied extensively, so that its rate of normal growth is well known. A good protein should produce normal growth when fed together with the other ingredients of a properly balanced diet. Peanut flour made from the press cake has been tested in this manner and found to contain proteins which produce normal growth. This work has been done at the University of Wisconsin and at the Connecticut Agricultural Experiment Station, as well as by the Bureau of Chemistry. When peanut flour is fed as the only source of protein in an otherwise adequate diet, the animals grow at a normal rate. The value of peanut meal as a stock and poultry feed is too well known to need discussion.

A number of mills are now pressing shelled, blanched peanuts in order to obtain a high-grade virgin peanut oil. When the press cake thus obtained is what is known as 74 per cent extraction, which means that the flour contains 74 per cent. of the wheat kernel. The rats fed on the wheat bread diet grew slowly and did not attain normal growth, while those fed on bread containing 25 per cent of peanut flour grew at a normal rate throughout the experiment. Wheat bread does not supply a very high percentage of protein, and some of the proteins in wheat are of a poor quality. The peanut flour added to the wheat not only increases the percentage of protein in the bread, but also adds proteins of a high quality. More than 25 per cent of peanut flour with wheat flour does not make a satisfactory loaf. In a great many communities bread is a very large part of the human dietary. It is therefore essential that bread should be as nutritious as possible. Since bread made from a mixture of peanut and wheat flours is more nutritious than bread made from wheat alone, it should be given careful consideration, particularly in feeding children, who need considerable protein of a high quality in order to grow normally.

### Not Hard to Digest

Peanuts are believed by some to be difficult of digestion. This is not true of peanut meal or flour or of peanut butter. The peanut itself is also easily digested if properly masticated. It must be remembered that peanuts are a very concentrated food. A pound of shelled peanuts contains about 2,500 calories, or sufficient energy for a grown person for 24 hours. When peanuts form a considerable part of the diet, there should be a corresponding reduction

(Continued on page 39)

# FOOD NEWS FROM WASHINGTON

## Farm Economist Appointed for Production Cost Work

The United States Department of Agriculture announces the appointment of Francis W. Peck, of the University of Minnesota, to the position of farm economist in the Office of Farm Management. Mr. Peck, under the immediate direction of Dr. H. C. Taylor, the new chief of the Office of Farm Management, will have charge of the studies and investigations relating to the cost of producing farm products. The general plan and methods for securing cost-of-production data were recently outlined by a committee of experts appointed by the Secretary of Agriculture. The report of the committee has been published by the department, and will serve as a guide in all future studies and investigations in this field.

Mr. Peck has been connected with the University of Minnesota for a number of years. Since 1912 he has been an instructor and assistant professor of farm management at that institution, and has also had charge of its cost-accounting investigations. He has prepared and published a number of bulletins dealing with the cost of producing farm products and other farm-management problems.

Mr. Peck was born and brought up on a farm in Indiana, where he received his common-school education. Later he attended the University of Minnesota and received his bachelor and master degrees. The long and varied experience which Mr. Peck has had in connection with task of directing the enlarged activities of the Office of Farm Man- studies of the cost of production peculiarly fit him for the responsible agement in this important field.

## More Imports of Meat

Examination of the inspection statistics of the Federal Bureau of Animal Industry show that imports of fresh beef in January totaled 3,920,093 lbs., compared to only 90,733 lbs. in January a year ago. Of this quantity 3,347,574 lbs. came from Canada, together with 502,943 lbs. of other fresh meat. Canned and cured meat imports in January totaled 11,286,426 lbs., of which 4,003,630 lbs. was from Uruguay and 6,530,448 lbs. from Argentina.

## Eggs in Cold Shortage

Reports from 386 cold storages to the U. S. Bureau of Markets show that on March 15 their rooms contained 33,946 cases of eggs, while on March 1, 428 storages reported 26,379 cases. Reports of nine storages are not yet received. On the basis of previous reports their holdings for March 15 are estimated as 2,712 cases. The 383 storages that reported holdings on March 15 of this year and last show a present stock of 33,901 cases as compared with 73,771 cases last year, a decrease of 39,270 cases or 53.7 per cent. The reports show that from March 1 to 15 the March 1 holdings increased 39.0 per cent, while the last report showed that during February the February 1 holdings decreased 80.9 per cent. Last year the increase from March 1 to 15 was 255.8 per cent and during February the decrease was 87.8 per cent.

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The Paris Municipal Council, Paris, France, is contemplating the construction of a cold storage depot for fish in the basement of the Market. The cost is estimated at from $300,000 to $400,000.

## Fish Landed at American Ports During January

THE United States Bureau of Fisheries has issued a statistical bulletin, No. 434, giving the quantities and values of fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels in January, 1919. The fishing fleet landing fishery products at these ports during the month included 194 steam and sail vessels. These vessels landed at Boston 244 trips, aggregating 7,811,443 pounds, valued at $492,372; at Gloucester, 156 trips, aggregating 3,802,632 pounds, valued at $215,165; and at Portland, 182 trips, aggregating 540,580 pounds, valued at $39,458, a total of 582 trips and of 12,154,655 pounds, having a value to the fishermen of $746,995. These receipts include two trips landed by a Canadian vessel at Boston, amounting to 193,704 pounds, valued at $11,473.

Bulletin No. 435 gives statistics of the quantities and values of fishery products landed at Seattle, Wash., by American fishing and collecting vessels in January, 1919. The fishing fleet during the month landed at this port seven trips, aggregating 180,900 pounds, having a value to the fishermen of $26,485. These products included halibut, 124,900 pounds, valued at $22,000; sablefish, 31,500 pounds, valued at $2,450; "lingcod," 15,000 pounds, valued at $1,225; and rockfishes, 9000 pounds, valued at $810. In addition to this catch collecting vessels landed 459,800 pounds of salmon, herring, pilchard, steelhead trout, and other species, valued at $32,318.

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Be free from care and help free the world. Buy W. S. S.

## To Study Retail Meat Market Conditions

A country-wide inquiry into the retail meat business is to be made by the Bureau of Markets, United States Department of Agriculture. The survey will include a comprehensive study of retail meat markets covering "cash and carry," delivery, "chain stores," and public-market stalls in a number of selected cities representing different types of trade and different local conditions. Efforts will be made to determine the most effective means and methods for the introduction of economics and the increase of efficiency in the distribution of meat from the wholesaler to the consumer. An information service for the aid of retailers, city and state officials and others interested, is included in the plans as outlined by the Bureau of Markets.

The work will be under the immediate direction of John A. Kotal, formerly a successful retail meat dealer of Chicago, who for a number of years was national secretary of the United Master Butchers of America.

The results of these inquiries will be published from time to time, and the bureau anticipates that significant improvements will be suggested and made possible by the studies of this phase of the meat industry, in which the producer as well as the consumer and the trade are vitally interested.

## Hoover Now Rail Chief

The Supreme War Council has given Herbert C. Hoover, Director General of Allied Relief, control of all the railroads in the old Austrian Empire. He has mandatory powers in demanding locomotive and freight cars with which to create a food relief service.

## Government Publications

The following publications were issued by the United States Department of Agriculture during the week ended March 22, 1919:

Report of Committee Appointed by the Secretary of Agriculture to Consider Plan of Organization, Scope of Work, and Projects for the Office of Farm Management, and Methods of Procedure in Making Cost-of-Production Studies. Office of the Secretary Circular No. 132.

Farm Practice in Growing Sugar Beets in Three California Districts. Department Bulletin 760.

Sweet-Potato Growing. Farmers' Bulletin 999.

How to Control Billbugs Destructive to Cereal and Forage Crops. Farmers' Bulletin 1003.

The City Home Garden. Farmers' Bulletin 1044.

Official Grain Standards of the United States for Oats. Bureau of Markets Service and Regulatory Announcement No. 46.

Copies of these publications may be obtained on application to the Division of Publications, United States Department of Agriculture, Washington, D. C.

## Food Knowledge for Foreign Born

Faced here with new living conditions, new foods, and more money to spend for food, the foreign-born housewife is likely to serve her family with poorly balanced meals. Children particularly suffer from indigestibles easily procured and given them daily. Much work is being done this year among foreign-born housewives by the extension workers from the United States Department of Agriculture and the state colleges. Where it is necessary, interpreters are used to translate the demonstrator's message to the women, who are usually eager to learn American ways. Italian women particularly are devoted mothers and are anxious to know and to practice the best methods of caring for children.

## Civil-Service Examination

The United States Civil Service Commission announces an open competitive examination for field agent, for men only, on April 23 and 24, 1919. Vacancies in the Bureau of Crop Estimates, Department of Agriculture, for duty in the field, at entrance salaries ranging from $1,600 to $2,400 a year will be filled from this examination.

Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.

The United States produces in normal times:

- 76 per cent of all corn grown in entire world.
- 70 per cent of all cotton.
- 72 per cent of all the oil.
- 59 per cent of all the copper.
- 44 per cent of all the coal.
- 35 per cent of all the tobacco.
- 43 per cent of all the iron.
- 26 per cent of all the silver.
- 24 per cent of all the wheat.
- 21 per cent of all the gold.

## Reports Milk Prices in 43 States

Monthly reports are now issued by the Bureau of Markets showing wholesale and retail prices of milk in over 100 cities in 43 States. The report for February shows retail prices for standard bottle milk delivered ranging between 11 and 20 cents a quart with the most usual prices 14 and 15 cents a quart. Prices paid producers per quart f. o. b. city varied from 6.4 to 12.7 cents a quart with the bulk of the milk ranging between 7 and 8 cents a quart. The February report carries a column showing the "dealers spread" in cents per quart on 3.5 per cent milk delivered to retail trade. It ranges from 4.4 cents to 11.5 cents.

## RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office. For further particulars address R. E. Burnham, Continental Trust Bldg., Wash., D. C.

1,292,311. Biscuit cutting and embossing machine. Thomas L. Green, Indianapolis, Ind.

1,292,401. Process for preserving matter. Francis S. Benenati, Syracuse, N. Y.

1,292,458. Process for preserving fugacious components of foods. William A. Hamor and Charles W. Trigg, Pittsburgh, Pa.

1,292,577. Apparatus for producing dried milk. Charles H. Campbell, New York, N. Y., assignor to Borden's Condensed Milk Co., same place.

1,292,645. Machine for filling and linking sausages. Louis Reisfeld, Chicago, Ill.

1,292,985. Pan-skip device for cracker-cutting machines. Daniel K. Allison, Cincinnati, Ohio, assignor to The J. H. Day Co., same place.

1,293,139. Ice-cream freezer. James J. McCourt, Lansing, Mich.

1,293,256. Lubricating device for dough-hoppers. Frank H. Van Houten, Beacon, N. Y., assignor to Dutchess Tool Co., same place.

1,293,395. Egg-preserver. Robert G. Fleming, Sr., Blackfoot, Idaho.

1,293,772. Manufacture of a concentrated bread. Charles A. Heudebert, Nanterre, France.

1,293,819. Pastry-making device. Lewis Lewison, Hamilton, Ontario, Canada.

1,294,096. Food-preserving apparatus. Olin P. Hall, Atlanta, Ga.

1,294,336. Machine for dividing and coring fruit. Rafael A. Gatica, Rancagua, Chile.

1,294,536. Baking and molding device. Webster M. Roberts, St. Joseph, Mo.

1,294,852. Nut hulling and cracking machine. Louis K. Vaughn, Woodland, Cal.

1,294,890. Fruit-trimming machine. David T. Fleming, Honokohau, Hawaii.

# DR. BARNARD'S VIEWS OF THE FOOD FIELD

## Where the State Laws Fall Down

THE manufacturer who ships adulterated food from one state to another is foolish. Sooner or later he is bound to get caught. Last year the Federal Food Inspectors did catch scores of them and the courts condemned hundreds of loads of illegal food. But the number of honest manufacturers is so great in comparison with the few who are willing to take a chance, and the volume of the business in pure products so large in comparison with the occasional stocks which the chemist pronounces illegal, that the consumer may safely sit down to his table assured of being fed with honest and wholesome food.

Many states produce great quantities of food which never cross the boundary line and so never come under the critical eye of the Federal inspector. It is a good thing to have a large supply of nearby grown food stuffs, but the saving in freight rates and distribution costs is sometimes overbalanced by the unsatisfactory condition in which these products come to market. Thousands of barrels of New York state apples are sold in the local markets which would never be allowed to reach the consumer if they were packed for sale in another state. Great quantities of beef and pork are eaten at home which would be condemned by the Federal meat inspector. Tons of starch and water are mixed with meat and sold as sausage to the unsuspecting consumer who would be protected if that sausage had been made in another state.

Most of the states have pure food laws and good sanitary food laws, and many state departments are officered by competent chemists and served by efficient inspectors, but unfortunately, the food inspection service is frequently looked upon as a part of the state's political organization, and the inspector in the field is expected not only to protect the consumer but at the same time to take care of the needs of the political machine. Of course, there is no more reason why food control should be a political function than that the weather should be subject to the whims of the party bosses. Some day when the people wake up they will see to it that their food supply is protected by experts instead of politicians, and that their health is guarded by men who have specialized in medicine instead of in the devious ways of partisan politics.

## Commercial Meat Substitutes

A FEW people cannot eat meat—many others think they cannot. The average vegetarian diet, supplemented by milk, butter and eggs, meets well the need of the average worker. Many vegetarians long for the flesh pot and their desire for meat has been an inducement to manufacturers to prepare meat substitutes which counterfeit the flavor and the texture of beef more or less closely.

These meat substitutes are made from nuts and cereals so combined that they supply a reasonable portion of protein and fat. Their flavor is never as distinctive as that of meat, nor are they helpful in reducing the cost of living for these forms of meat substitutes are expensive rather than cheap, and the housewife who would save on the meat bill will look to peas and beans, cheese and fresh cracked nuts for high fat and protein foods.

The commercial meat substitutes are chiefly interesting because they show the failure of man to compete with Nature in producing food.

## Caviar—A Waste Product Turned to Account

AT the prices quoted on the bill of fare, caviar seems the real thing instead of a by-product salted and dried to keep it from wasting. True caviar is made from the roe of eggs of sturgeon, the largest of fresh water fish. What the potato is to the Irish; what rice is to the celestial, caviar in its various grades is to the Russian.

Fresh caviar is not always obtainable. It is transported with difficulty. It spoils readily and so the Russian fishermen salt it to keep it in good condition, just as we salt pork and codfish and mackerel. Of course the Russians in the interior would have preferred fresh fish, but since they cannot get it they ate caviar and were content. Little did they dream that America's millionaires, with the fish of the sea, the rivers and the lakes at their command, would pay a king's ransom every year in order to import this particular kind of dried and salted sturgeon roe.

Caviar is always a luxury but those who have acquired a taste for this dainty Russian tidbit may derive some consolation in the fact that of all the fish foods caviar is the richest in fuel value. Blue fish is hardly one-seventh as valuable a food as caviar.

There are several grades of caviar, determined by the size of the roe. But the real taste is in its flavor and this is as often found in the small as in the large roe and in the black caviar as in any other color. The large eggs and the grey and yellow are the most rare and therefore the most expensive. The caviar supply does not influence the price of food. It is always so high that it is a luxury instead of a staple.

## Cleanliness In Food Handling

THE absolute necessity of clean-handed cooks and waiters is pointed out by the Chicago Department of Health in a recently issued bulletin. The Food Inspectors may well note the warning and use it in their efforts to put sanitation and cleanliness in every restaurant and public kitchen. The warning as issued is as follows:

"The human hand, while a most useful and indispensable member, is after all a constant and serious menace to health.

"This statement may sound silly or startling or strange, or all of these; nevertheless, it is true. It is true for the reason that most hands are dirty with the kind of dirt which contains the germs of disease. And as human hands touch everything they become the most common and, therefore, the most dangerous mediums for the spread of many of the communicable diseases.

"Noted medical men who have been studying carefully the recent outbreak of influenza in the various army camps and troop ships have reached the conclusion that the outbreak of influenza in the camps studied was essentially a hand to mouth infection. Also that the prevention of the hand to mouth infection may be accomplished by any measures which will prevent the unclean hand from visiting the mouth and nose and by the thorough cleansing of the hand after such visits.

"The violent and explosive character of the outbreaks of influenza among the soldiers in the camps was, after the most careful study, attributed almost entirely to hand polluted dish water used by the soldiers for washing their mess kits, owing to the inadequate amount of water used, in one instance being only four gallons for 250 men. The bacterial counts in all instances showed very high: Further, it was noted that it was under such conditions that the disease spread with almost incredible rapidity and was invariably characterized by the streptococcus and pneumococcus complications. Hence, the conclusion that an epidemic of influenza in camps and troop ships may be largely controlled by elimination of hand contaminated dish water.

"As supporting the theory of hand to mouth infection as being one of the major sources through which disease is communicated, attention is called to the well known fact that the mouth is touched by the hand many times daily. Sputum is usually wiped off on a handkerchief already soiled; and that the hands are thus always more or less contaminated. It is also urged that hand to mouth infection explains the frequent explosive character of outbreaks of influenza, because of the practically simultaneous reception of the infective agent in massive doses by a large group of people."

## Do Municipal Markets Help the Consumer?

THREE years ago a special committee of the Commission Government of Memphis investigated the municipal market and made an extensive report covering every phase of its operation. A thorough study was made of the effect of the public market on the reduction of food prices.

In the city of Baltimore which has had a public market for over one hundred years the scale of food prices is somewhat lower in the markets than in the privately owned shops. In Cincinnati, which has had a public market since 1850, prices are a little lower to cash buyers but not any lower to credit buyers. In New Orleans, where the public market is as old as the city itself, there is a difference of opinion as to the effect of the market on prices. In Boston, where Faneuil Hall has been a market since 1742, prices are not affected except where the consumer buys in quantity. In Montreal, which has operated public markets for seventy-five years, buyers generally pay less at the market than in the retail stores. The Rochester public market which has been in operation but ten years, has had no appreciable effect upon prices. The Indianapolis public market has been operated since the city was founded. Careful buyers claim they can buy more cheaply at the public market than elsewhere. Seattle has had public markets but a few years. They tend to keep down prices on all food supplies except meat.

In general the opinion is expressed that the public market tends to stabilize prices. The consumer does not buy his food supplies much cheaper than at the corner grocery or meat-market but the fact that a public market is in operation keeps down retail prices by supplying wholesome competition.

## Alfalfa Hay for Human Food

CHEMICALLY speaking, alfalfa contains the food elements necessary to nourish man, but in practice the manufacturers of alfalfa food products have not yet succeeded in satisfying the popular taste. Kansas owes much of her prosperity to her alfalfa farmers and naturally is interested in every product which may be fashioned from the fragrant clover.

Margaret H. Haggart, who teaches domestic science at the State College, in a recent Kansas alfalfa bulletin tells of her inquiries into the value of alfalfa as a food for man. She tested flour made by grinding alfalfa leaves and mixed with wheat flour in the making of griddle cakes, muffins, biscuits, doughnuts and cakes. All but the biscuits were very palatable and of agreeable flavor although the decided greenish tint was objectionable to some of the users. Crackers and cakes made from alfalfa were palatable, but candy in which the chief ingredient was alfalfa was too strong flavored to be liked. Tea made from the dried leaves of alfalfa tasted very much like ordinary herb tea. An imitation coffee prepared from baked alfalfa leaves was quite as satisfactory a breakfast beverage as any of the cereal coffees.

The therapeutic value of alfalfa for human food has not yet been fully determined. The large amount of fiber it contains makes it valuable as a laxative and its high content of mineral matters suggests its value in furnishing the necessary mineral salts.

It is not probable that alfalfa will replace flour. Manufacturers may learn to prepare it in such forms that its high and complex protein content may be made available in food for man, thus short circuiting the steer whose meat now supplies the protein built up on alfalfa rations.

If we can obtain protein from alfalfa without first converting it into meat the human family will not soon suffer from a shortage of this all important food constituent.

Speed the day when the chemist is able to make alfalfa a staple food for the grocery shelves.

Meat, milk, eggs, fish, cheese, beans, peas, nuts, and cereals are the foods which furnish protein in quantity for the human body.

## APRIL

| Average Price per Pound | Average Price per 10,000 Calories | | Lima, Ohio (Typical Small Town) | Buffalo, N. Y. | Trenton, N. J. | Providence, R. I. | Boston, Mass. | Philadelphia, Pa. | Pittsburgh, Pa. | Washington, D. C. | Columbus, Ohio | Cincinnati, Ohio | Richmond, Va. | Lynchburg, Va. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CEREAL PRODUCTS— | | | | | | | | | | | | |
| $0.07 | $ 0.43 | Wheat flour standard, 49-lb. bag | $3.30 | $3.30 | $3.50 | $3.50 | $3.70 | $3.50 | $3.00 | $3.48 | $3.10 | $3.40 | $3.40 | $3.40 |
| .07 | .44 | Rye flour, standard, 24½-lb. bag | 1.65 | 1.71 | 2.20 | 1.72 | 1.72 | 1.70 | 1.50 | ... | ... | 1.65 | ... | 2.00 |
| .07 | .43 | Graham flour, 10-lb. bag | .70 | .70 | 1.00 | .70 | .80 | .75 | .90 | ... | ... | .70 | ... | ... |
| .12 | .73 | Cornstarch, per lb | .12½ | .12 | .10 | .12 | .11 | .12 | .10 | .11 | .12 | .12 | .10 | .15 |
| .06 | .37 | Corn flour, 5-lb. bag | .35 | .30 | .30 | .30 | .36 | .40 | .25 | ... | ... | .25 | ... | .50 |
| .06 | .37 | Cornmeal, per lb | .06 | .06 | .06 | .05 | .06 | .07 | .05 | .05 | .05 | .05 | ... | .06½ |
| .07 | .42 | Barley flour, per lb | .08 | .06½ | .08 | .06 | .07 | .09 | .05 | ... | .06 | ... | ... | ... |
| .09 | .49 | Oatmeal, per lb | .12 | .07½ | .05 | .08 | .07 | .08 | .08 | .12 | .05 | .05 | .08 | ... |
| .08 | .44 | Oats, rolled, bulk, per lb | .09 | .06 | .05 | .06 | .06 | .07 | .04 | ... | .06 | .05 | ... | .15 |
| .12 | .73 | Rice flour, per lb | .10 | .20 | .15 | .12 | ... | .12 | .09 | ... | .15 | ... | ... | ... |
| .11 | .69 | Buckwheat flour, per lb | .10 | .10 | .10 | .10 | .07 | .12 | .08 | .10 | .23 | .07½ | .10 | .10 |
| .09 | .56 | Hominy grits, per lb | .12 | .08 | .08 | .10 | .06 | .09 | .04 | .10 | ... | .07 | .10 | .15 |
| .11 | .60 | Quaker Oats, 1 lb. 4 oz | .13 | .12 | .11 | .11 | .11 | .14 | .12 | .12 | .13 | .12 | ... | .15 |
| .14 | .88 | Rice, fancy, head, per lb | .15 | .15 | .15 | .12 | .14 | .16 | .12 | .13 | .15 | .13 | .15 | .15 |
| .12 | .74 | Barley, pearled, per lb | .15 | .05 | .08 | .06 | .07 | .10 | .09 | .08 | .25 | .08 | .15 | .15 |
| .10 | .84 | Bread, per lb | .10 | .09½ | .09 | .09 | .10 | .08 | .09 | ... | .10 | .10 | .10 | .10 |
| .24 | 1.26 | Crackers, graham, per lb | .22 | .25 | .22 | .25 | .20 | .25 | .20 | ... | .20 | .22 | .25 | .18 |
| .23 | 1.19 | Crackers, oatmeal, per lb | .22 | .25 | .22 | .22 | .20 | .25 | .20 | ... | .18 | .22 | .25 | ... |
| .13 | .79 | Macaroni, per lb | .15 | .14 | .14 | .13 | .17 | .18 | .08 | .15 | .12 | .10 | .15 | .10 |
| | | SUGAR AND SYRUP— | | | | | | | | | | | | |
| .10 | .55 | Granulated sugar, per lb | .11 | .10 | .10 | .10 | .10 | .10½ | .10 | .10 | .10 | .10½ | .10 | .11 |
| .09 | .62 | Corn syrup, 10-lb. pail | .85 | .75 | .75 | ... | 1.00 | .55 | .85 | .80 | .90 | .75 | ... | .90 |
| .39 | 2.50 | Comb honey, per lb | .45 | .40 | .45 | ... | .50 | .45 | .40 | .40 | .40 | .45 | ... | .30 |
| | | FATS— | | | | | | | | | | | | |
| .56 | 2.36 | Bacon, sliced, per lb | .60 | .52 | .55 | .50 | .70 | .55 | .55 | .50 | .55 | .55 | .45 | .58 |
| .70 | 2.01 | Creamery butter, fancy, per lb | .70 | .69 | .75 | .68 | .73 | .80 | .70 | .80 | .68 | .70 | .80 | .75 |
| .35 | .85 | Pure leaf lard, per lb | .35 | .32 | .34 | .34 | .47 | .35 | .35 | .35 | .34 | .32 | .35 | .35 |
| .39 | 1.14 | Oleomargarine, uncolored, per lb | .42 | .35 | .35 | .30 | .40 | .40 | .38 | .35 | .37 | .38 | .34 | ... |
| .36 | 1.02 | Nut Margarine, uncolored, per lb | .37 | .34 | .35 | ... | .34 | .35 | .38 | .35 | .35 | .35 | .39 | .35 |
| 1.01 | 2.52 | Italian or Spanish olive oil, per qt. tin | 2.00 | 1.33 | 2.10 | 2.25 | 2.20 | 1.50 | 1.25 | 1.25 | 1.25 | 1.50 | 1.25 | ... |
| .37 | .92 | Cottonseed oil, per qt. tin | .80 | .80 | .75 | .75 | .73 | .80 | .50 | .60 | .70 | .70 | .80 | .80 |
| .38 | .95 | Corn oil, per qt. tin | .80 | .75 | .75 | .70 | .70 | .80 | 1.00 | ... | .75 | .35 | ... | ... |
| .48 | 1.20 | Peanut oil, per qt. tin | .90 | 1.00 | .85 | 1.00 | ... | .85 | 1.00 | .80 | ... | ... | 1.00 | ... |
| .29 | 1.05 | Peanut butter, per lb | .30 | .25 | .26 | .29 | .35 | .30 | .20 | .22 | .20 | .30 | .50 | .35 |
| | | FRUITS— | | | | | | | | | | | | |
| .22 | 1.66 | Evaporated apples, per lb | .20 | .22 | .22 | .20 | .24 | .25 | .25 | .25 | .15 | .25 | .20 | .18 |
| .23 | 1.91 | Evaporated peaches, per lb | .25 | .20 | .18 | .25 | .28 | .25 | .21 | .25 | .18 | .20 | .25 | .25 |
| .16 | 7.61 | Canned peaches, No. 2½ stand. 1 lb. 13 oz | .30 | .40 | .35 | .23 | .40 | .35 | .33 | .35 | .25 | .30 | .30 | .30 |
| .17 | 2.42 | Canned pineapples, No. 2½ stand, 1 lb. 14 oz. | .45 | .38 | .38 | .27 | .37 | .40 | .35 | .28 | .25 | .35 | .35 | .40 |
| .16 | 1.03 | Raisins, seeded, per pkg. 15 oz | .18 | .15 | .15 | .15 | .14 | .16 | .14 | .15 | .15 | .15 | .18 | .18 |
| .21 | 1.81 | Prunes, medium sized, per lb | .25 | .18 | .22 | .20 | .30 | .25 | .18 | .25 | .15 | .25 | .20 | .25 |
| | | VEGETABLES— | | | | | | | | | | | | |
| .03 | 1.00 | White potatoes, per lb | .02 | .02 | .02½ | .04 | .03 | .03 | .02½ | .04 | .04 | .03 | .02 | .02 |
| .08 | 1.77 | Sweet potatoes, per lb | .10 | .12½ | ... | .10 | .15 | .07 | .10 | .08 | .13 | .09 | .08 | .06 |
| .06 | 3.00 | Onions, per lb | .07 | .05 | .05 | .08 | .08 | .03 | .05 | .10 | .08 | .06 | .10 | .10 |
| .12 | .76 | Navy beans, dry, per lb | .12 | .12 | .12 | ... | .12 | .14 | .09½ | .11 | .09 | .10 | .10 | .15 |
| .17 | 18.88 | String beans, cnd., No. 2 stand., 1 lb. 3 oz | .20 | .20 | .18 | .22 | .33 | .25 | .16 | .20 | .18 | .25 | .30 | .20 |
| .15 | 3.49 | Corn, canned, No. 2, stand., 1 lb. 4 oz | .15 | .19 | .18 | .16 | .21 | .20 | .12½ | .20 | .15 | .15 | .20 | .20 |
| .15 | 6.00 | Peas, canned, No. 2, stand., 1 lb. 4 oz | .18 | .19 | .18 | .15 | .25 | .20 | .15 | .20 | .15 | .18 | .20 | .25 |
| .14 | .87 | Split peas, per lb | .15 | .14 | .14 | .10 | .11 | .14 | .12 | .25 | .10 | .10 | .15 | ... |
| .25 | 1.34 | Peanuts, unshelled, per lb | ... | .40 | .15 | ... | .20 | .20 | .20 | .18 | .25 | .20 | .20 | ... |
| .10 | 10.00 | Tomatoes, canned, No. 3, stand. 2 lb. 1 oz | .20 | .23 | .18 | .15 | .27 | .15 | .18 | .20 | .22 | .20 | .18 | .15 |
| .06 | 5.00 | Cabbage, per lb | .12 | .05 | .07 | .12 | .05 | .04 | .05 | .10 | .04 | .07½ | .08 | .05 |
| .06 | 3.53 | Beets, per lb | .05 | .05 | ... | .03 | .05 | .02 | .04 | .10 | .04 | ... | ... | ... |
| .05 | 2.73 | Turnips, per lb | .05 | .03 | .04 | .03 | .05 | .02 | .03½ | .02½ | .04 | .03 | ... | ... |
| | | MEATS AND FISH— | | | | | | | | | | | | |
| .37 | 5.69 | Beef, round steak, per lb | .45 | .40 | .40 | .35 | .60 | .48 | .40 | .38 | .30 | .35 | .38 | .35 |
| .40 | 8.00 | Veal cutlets, per lb | .45 | .38 | .50 | .60 | .75 | .50 | .45 | .50 | .45 | .40 | .50 | .40 |
| .37 | 4.25 | Leg of mutton, per lb | .45 | ... | ... | ... | ... | .35 | .40 | ... | .35 | .25 | .45 | ... |
| .42 | 5.00 | Leg of lamb, per lb | .50 | .40 | .45 | .40 | .42 | .42 | .45 | .40 | .40 | .45 | .45 | .45 |
| .40 | 3.25 | Pork chops, per lb | .45 | .38 | .40 | .42 | .40 | .45 | .40 | .35 | .40 | .40 | .35 | .40 |
| .55 | 2.84 | Ham, sliced, medium fat, per lb | .70 | ... | .50 | .65 | .60 | .60 | .55 | .50 | .55 | .55 | .50 | .55 |
| .57 | 19.65 | Chickens, broilers, per lb | .70 | .60 | .65 | .50 | .70 | .90 | .60 | .50 | .38 | .60 | ... | ... |
| .28 | 7.77 | Salt cod, per lb | .35 | .25 | .28 | .20 | .25 | .35 | .28 | .30 | .30 | .30 | ... | ... |
| .27 | 2.70 | Salt mackerel, per lb | .30 | .35 | .28 | .25 | .30 | .35 | .35 | .20 | .30 | .25 | .30 | .20 |
| .33 | 7.33 | Halibut, per lb | .35 | .34 | .50 | .35 | .35 | .35 | .40 | .40 | .35 | .30 | ... | ... |
| .33 | 5.15 | Salmon, per lb | .35 | .30 | .40 | .25 | .50 | .30 | .40 | .22 | .40 | .30 | ... | ... |
| .30 | 4.54 | Salmon, canned, No. 1, Red Alaska, 1 lb | .35 | .30 | .28 | .25 | .25 | .22 | .28 | .28 | .25 | .30 | ... | .27 |
| .34 | 9.19 | Trout, per lb | .35 | .32 | ... | ... | .35 | .40 | .35 | ... | .40 | .25 | ... | ... |
| .25 | 7.81 | Whitefish, per lb | .35 | .32 | .20 | ... | .20 | .32 | .30 | ... | .35 | .30 | ... | .12½ |
| | | MISCELLANEOUS— | | | | | | | | | | | | |
| .31 | 1.37 | Cocoa, bulk, per lb | .25 | .25 | .30 | .25 | .12 | .30 | .30 | .35 | .25 | .30 | .25 | ... |
| .30 | 5.00 | Eggs, fresh gathered, firsts, per doz | .45 | .50 | .50 | .56 | .60 | .48 | .48 | .45 | .40 | .45 | .45 | .40 |
| .06 | 1.93 | Milk, per qt | .13 | .15 | .13 | ... | .16 | .13 | .16 | .16 | .14 | .14 | ... | ... |
| .42 | 2.02 | Cheese, American, cheddar, per lb | .43 | .40 | .40 | ... | .45 | .35 | .44 | .45 | .45 | .45 | .45 | .40 |

# PRICES

1919

| Atlanta, Ga. | Montgomery, Ala. | Nashville, Tenn. | New Orleans, La. | Lexington, Ky. | Boise, Idaho | Detroit, Mich. | Indianapolis, Ind. | Jefferson City, Mo. | St. Paul, Minn. | Lincoln, Nebr. | Columbia, S. C. | Fargo, N. Dak. | Reno, Nev. | Denver, Col. | Tucson, Ariz. | Jackson, Miss. | San Francisco, Cal. | Berkeley, Cal. | Los Angeles, Cal. | Portland, Ore. | Seattle, Wash. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $3.30 | $ ... | $3.20 | $3.60 | $3.50 | $2.75 | $3.30 | $3.45 | $3.35 | $3.25 | $3.25 | $3.40 | $3.15 | $3.20 | $2.90 | $3.25 | $3.70 | $2.90 | $3.25 | $3.20 | $2.80 | $2.85 |
| 1.65 | ... | 1.60 | 1.80 | 1.85 | 1.50 | 1.65 | 1.60 | 1.70 | 1.65 | ... | 1.60 | ... | 1.96 | 1.35 | ... | ... | 1.60 | 1.65 | 1.44 | 1.75 | 1.55 |
| .90 | ... | .80 | .75 | .75 | .75 | .65 | .80 | .85 | .70 | .50 | .75 | .70 | .75 | .60 | .80 | .85 | .70 | .72 | .69 | .75 | .60 |
| .10 | .13 | .08 | .12 | .15 | .12½ | .10 | .10 | .15 | .10 | .15 | .13 | .10 | .13 | .12½ | .15 | .15 | .12½ | .12 | .11 | .10 | .08 |
| .35 | ... | .40 | .37½ | .40 | ... | .30 | .35 | ... | .35 | .35 | ... | .05 | .40 | .30 | ... | .30 | .30 | .30 | ... | .35 | .40 |
| .05 | .05 | .04 | .05 | .05 | .07½ | .05 | .06 | .06 | .07 | .10 | .05 | .06½ | .07 | .06 | .08½ | .06 | .05 | .07½ | .07 | .07 | .07½ |
| .10 | ... | .12 | .10 | .10 | .07½ | .12 | .08 | ... | .08 | .07 | .08 | .05 | .05 | .07 | ... | .07 | .05½ | .05½ | ... | .07½ | .08 |
| .10 | ... | .12 | .07½ | .12 | .08 | .08 | .11 | ... | .10 | .08 | ... | .08 | .10½ | .10 | .07 | ... | .09 | .10 | .10½ | .08 | .06½ |
| .10 | ... | .07 | .07½ | .10 | .08 | .06 | .09 | .15 | .07 | .08 | ... | .07½ | .10 | .10 | .07 | ... | .07 | .08 | .08 | .08 | .06½ |
| .12½ | ... | .15 | .12 | .15 | .12½ | .06 | .10 | ... | .10 | .12½ | .12 | .08 | .07 | .12½ | ... | ... | .08 | .08 | .20 | .10 | .11 |
| 12½ | ... | .10 | .12 | .15 | .12½ | .12 | .11 | ... | .12½ | ... | .12 | .10 | .13 | .12½ | ... | .12½ | .12½ | .11 | .12½ | .12½ | .09½ |
| .12½ | ... | .15 | .12 | .15 | .12½ | .06 | .10 | ... | .10 | .12½ | .06 | .10 | .08½ | .10 | .12 | .06½ | .06 | .10 | .07 | .08 | .07½ |
| .12 | .13 | .12 | .12 | .15 | .15 | .13 | .14 | .15 | .13 | .15 | .15 | .12 | .15 | .15 | .14 | .15 | .15 | .14 | .13 | .15 | .15 |
| .12½ | .13 | .12 | .12 | .15 | .15 | .12 | .15 | .13 | .15 | .18 | .15 | .13 | .15 | .12½ | .17½ | .13 | .12½ | .12½ | .12 | .14 | .12½ |
| .15 | .13 | .12 | .07 | .20 | .15 | .10 | .09 | .15 | .15 | .18 | .15 | .10 | ... | .20 | .25 | .15 | .10 | .15 | .12 | .09 | .07½ |
| .15 | .17 | .10 | .10 | .10 | .12½ | .08 | .07½ | .10 | .08 | .10 | .10 | .12 | .10 | .15 | .10 | .10 | .10 | .08 | .10 | .10 | .10 |
| .20 | .20 | .30 | .20 | .25 | .20 | .20 | .22 | .50 | .25 | .20 | .25 | .35 | .20 | .25 | ... | .35 | .30 | .36 | .15 | .18 | .20 |
| .20 | .15 | .20 | .20 | .25 | .20 | .20 | .22 | ... | .25 | .40 | .25 | .35 | .20 | .20 | ... | ... | .35 | .35 | .15 | .18 | .22 |
| .10 | .15 | .08 | .10 | .20 | .12½ | .10 | .19 | .10 | .12½ | .20 | .20 | .11 | .12 | .15 | .17 | .15 | .12½ | .10 | .11 | .11 | .12½ |
| | | | | | | | | | | | | | | | | | | | | | |
| .11 | .11 | .10 | .08½ | .11 | .11½ | .10½ | .11 | .11½ | .11 | .10 | .11 | .11 | .11 | .11 | .11½ | .11 | .10 | .10 | .11 | .10 | .10 |
| .79 | 1.00 | .75 | .95 | .85 | 1.00 | .85 | .90 | .90 | .85 | 1.00 | .90 | .75 | 1.05 | .90 | 1.05 | 1.00 | .90 | .95 | .91 | .90 | .95 |
| .45 | .50 | .35 | .35 | .25 | .25 | .50 | .35 | ... | .40 | .40 | .30 | .40 | .30 | .50 | ... | ... | .35 | .35 | .35 | .40 | .32 |
| | | | | | | | | | | | | | | | | | | | | | |
| .60 | .55 | .55 | .55 | .60 | .55 | .50 | .50 | .40 | .60 | .55 | .70 | .40 | .60 | .60 | .80 | .60 | .39 | .68 | .67½ | .50 | .65 |
| .70 | .76 | .70 | .73 | ... | .70 | .71 | .65 | .70 | .65 | .60 | .78 | .65 | .65 | .68 | .72 | .70 | .63 | .62 | .65 | .70 | .68 |
| .35 | .38 | .35 | .35 | .36 | .32 | .33 | .37 | .35 | .35 | .35 | .35 | .32 | .35 | .40 | ... | .37½ | .30 | .34 | .31 | .30 | .30 |
| .38 | .45 | .35 | .39 | .40 | .40 | .35 | .37 | .37 | .40 | .35 | .42 | .35 | .40 | .40 | ... | .45 | .35 | .41 | .41 | .42 | .45 |
| .35 | .38 | .35 | .34 | .40 | .40 | .35 | .32 | .37 | .35 | .35 | .38 | .30 | .40 | .35 | ... | .35 | .32 | .31 | .36 | .38 | .35 |
| ... | 2.20 | 1.25 | 1.50 | 2.00 | 1.50 | 2.00 | 1.50 | 1.50 | 1.75 | 1.40 | 2.00 | 1.75 | 1.45 | 2.50 | ... | 1.50 | 1.25 | 1.25 | ... | 1.35 | 1.65 |
| .75 | .80 | .60 | .75 | .90 | .75 | 1.00 | .47 | ... | .75 | 1.00 | .90 | .75 | .80 | .90 | 1.00 | .50 | .65 | .65 | .60 | .75 | .60 |
| .75 | .74 | .65 | .75 | .75 | .75 | .85 | .69 | .40 | .75 | .75 | .85 | .65 | .80 | .90 | .85 | .85 | .67 | .68 | .65 | .75 | .65 |
| .75 | 1.00 | ... | .75 | .85 | ... | 1.25 | 1.25 | ... | ... | ... | .85 | ... | ... | .90 | ... | ... | ... | ... | 1.10 | ... | 1.20 |
| .30 | .35 | .30 | .35 | .30 | .35 | .23 | .23 | .35 | .22 | .25 | .40 | .30 | .30 | .30 | ... | .35 | .25 | .25 | .25 | .23 | .20 |
| | | | | | | | | | | | | | | | | | | | | | |
| .17½ | .20 | .20 | .20 | .20 | .18 | .20 | ... | .23 | .25 | .25 | .25 | .19 | .20 | .25 | .25 | .30 | .25 | .25 | .22 | .19 | .23 |
| .25 | .22 | .20 | .20 | .25 | .18 | .30 | .25 | .20 | .20 | .24 | .25 | .20 | .12½ | .25 | .25 | .30 | .20 | .20 | .25 | .19 | .23 |
| .35 | .35 | .35 | .25 | .40 | .35 | .33 | .45 | .30 | .30 | .50 | .35 | .30 | .25 | .35 | .40 | .35 | .25 | .35 | .30 | .30 | .30 |
| .35 | .22 | .40 | .30 | .45 | .30 | .38 | .45 | .35 | .30 | .40 | .45 | .34 | .25 | .35 | .30 | .45 | .25 | .28 | .30 | .25 | .35 |
| .18 | .18 | .15 | .15 | .17 | .17½ | .16 | .17 | .15 | .15 | .18 | .18 | .14 | .14 | .18 | .20 | .18 | .15 | .14 | .14 | .14 | .12½ |
| .25 | .22 | .15 | .20 | .25 | .20 | .20 | .30 | .25 | .18 | .23 | .30 | .17 | .15 | .20 | .25 | .25 | .17½ | .18 | .20 | .16 | .17½ |
| | | | | | | | | | | | | | | | | | | | | | |
| .03½ | .04 | .03 | .05 | .03 | .02 | .02 | .02½ | .02 | .02 | .02 | .04 | .02 | .01½ | .02 | .03 | .04 | .02 | .03½ | .04 | .02 | .02 |
| .05 | .03 | .06 | .06 | .06 | .08 | .12 | .10 | .10 | .12 | .10 | .06 | ... | .06 | .10 | .08½ | .04 | .05 | .06 | .04 | .10 | ... |
| .10 | .08 | .05 | .06 | .06 | .03 | .06 | .05 | .08 | .05 | .07 | .10 | .08 | .04 | .03 | .05 | .07 | .05 | .04 | .05 | .04 | .11 |
| .12½ | .15 | .11 | .12 | .12½ | .12½ | .10 | .10 | .13 | .10 | .12½ | .15 | .14 | .12 | .15 | .15 | .15 | .07 | .10½ | .10 | .08 | .12½ |
| .25 | .20 | .15 | .20 | .30 | .20 | .18 | .25 | .15 | .20 | .15 | .25 | .17 | .17 | .20 | .25 | .25 | .15 | .21 | .20 | .16 | .23 |
| .20 | .20 | .15 | .17½ | .20 | .20 | .18 | .18 | .15 | .15 | .15 | .30 | .18 | .20 | .20 | .20 | .20 | .18 | .25 | .25 | .16 | .22½ |
| .25 | .25 | .15 | .18 | .25 | .20 | .18 | .14 | .15 | .15 | .15 | .25 | .15 | .16 | .20 | .25 | .20 | .15 | .24 | .22 | .20 | .17½ |
| .20 | .18 | .14 | .15 | .15 | .15 | .15 | .12 | .15 | .15 | .28 | .20 | .15 | .12 | .15 | ... | .15 | .12½ | .15 | .13 | .08 | .09½ |
| ... | .10 | .20 | .65 | .35 | .25 | ... | ... | .25 | .20 | .20 | ... | ... | .25 | .25 | ... | ... | .25 | .30 | .17½ | .20 | .25 |
| .20 | .30 | .15 | .16 | .20 | .20 | .18 | .21 | .20 | .18 | .20 | .20 | .25 | .25 | .25 | .25 | ... | .15 | .16 | .18 | .15 | .20 |
| .10 | .07 | .03 | .05 | .06 | .08 | .08 | .06 | .08 | .05 | .08 | .05 | .08 | .04 | .04 | .07½ | .07 | .02½ | .02 | .03 | .05 | .06 |
| .08 | .10 | .05 | .05 | .10 | ... | .04 | ... | .15 | .03 | .05 | .10 | .08 | .03 | .03 | .05 | ... | .03 | .05 | .04 | .05 | .03 |
| .04 | .10 | .05 | .05 | .08 | ... | .04 | ... | .02 | .03 | .05 | .07 | .05 | .03 | .02 | .05 | ... | .03 | .05 | .04 | .05 | .03 |
| | | | | | | | | | | | | | | | | | | | | | |
| .35 | .35 | .40 | .35 | .40 | .35 | .35 | .35 | .35 | .35 | .34 | .40 | .35 | .32 | .40 | ... | .40 | .25 | .35 | .30 | .30 | .30 |
| .35 | .40 | .40 | .35 | .50 | .40 | .50 | .50 | .40 | .35 | .35 | .50 | .40 | .40 | .40 | ... | ... | .25 | .35 | .38 | .30 | .30 |
| .45 | .40 | .35 | .60 | .45 | .40 | .38 | .35 | .40 | .35 | .25 | .40 | .35 | .28 | .35 | ... | ... | .27 | .30½ | ... | .38 | .30 |
| .55 | .40 | .40 | .40 | .45 | .40 | .40 | ... | .50 | .38 | .50 | .45 | .40 | .35 | .40 | ... | .40 | .33 | .35½ | .35 | .50 | .40 |
| .40 | .35 | .35 | .40 | .40 | .40 | .40 | .35 | .40 | .38 | .33 | .40 | .38 | .40 | .40 | ... | .40 | .42 | .40 | .48 | .35 | .40 |
| .50 | .50 | .50 | .45 | .50 | .50 | .58 | .60 | .50 | .55 | .55 | .50 | .45 | .60 | .50 | .50 | ... | .60 | .65 | .60 | .60 | .60 |
| .75 | .50 | .35 | .50 | ... | .40 | .39 | .48 | .30 | .40 | .60 | .65 | ... | ... | .40 | .60 | ... | .70 | .75 | .75 | .50 | .75 |
| ... | ... | ... | .25 | .25 | ... | .30 | .30 | .30 | .30 | .35 | .40 | .20 | .22½ | .35 | ... | ... | .22½ | .25 | .25 | .20 | .20 |
| .30 | ... | ... | .20 | .20 | ... | .30 | .30 | .30 | .25 | .30 | .30 | .30 | .35 | .30 | .20 | .17½ | .40 | .40 | .15 | .20 | .17½ |
| ... | ... | ... | ... | .35 | .35 | .25 | .30 | .35 | .33 | .37 | ... | .30 | .28 | .35 | .30 | ... | .35 | .35 | .27 | .22 | .20 |
| ... | ... | ... | .23 | .35 | .38 | .20 | .25 | ... | .33 | .35 | .30 | .35 | .33 | .40 | .50 | ... | .30 | .35 | .35 | .30 | .30 |
| .30 | ... | .19 | .23 | .35 | ... | .25 | .30 | .35 | .30 | .41 | .45 | .22 | .30 | .35 | .30 | .40 | .25 | .29 | .35 | .30 | .28 |
| .25 | .25 | ... | .20 | .30 | ... | .25 | .30 | ... | .28 | .35 | .30 | ... | ... | .35 | ... | ... | .65 | .65 | ... | .30 | ... |
| .15 | .25 | ... | .17½ | .30 | ... | .25 | .25 | .30 | .20 | .32 | ... | .30 | ... | .35 | ... | ... | .10 | .10 | ... | .35 | ... |
| | | | | | | | | | | | | | | | | | | | | | |
| .30 | .40 | .30 | .40 | .50 | .30 | .25 | .35 | .45 | .25 | .29 | .55 | .30 | ... | .40 | ... | ... | .22½ | .23 | ... | .33 | .45 |
| .40 | .40 | .40 | .40 | .40 | .45 | .46 | .45 | .40 | .45 | .38 | .45 | .41 | .45 | .45 | .45 | .40 | .52 | .50 | .50 | .45 | .48 |
| .30 | .15 | .10 | .17 | .18 | .15 | .15 | .12 | .15 | .12 | .14 | .20 | .13 | .15 | .13 | ... | ... | .14 | .14 | ... | .14 | .13 |
| .40 | .43 | .40 | .40 | .50 | .40 | .45 | .45 | .50 | .40 | .45 | .45 | .37 | .35 | .40 | .50 | .48 | .45 | .40 | .44 | .40 | .38 |

# Central Atlantic States Food Officials Meet

THE Third Annual Convention of the Central Atlantic States Dairy, Food & Drug Officials' Association was held at the Hotel Adelphia, Philadelphia, Pa., on March 21-22, 1919, with Dr. Fred C. Blanck, Food & Drug Commissioner of Maryland, presiding.

The program as published in the March number of this Journal was closely followed. The opening session was devoted to a report of the Oyster Committee by Dr. W. W. Randall, Maryland Department of Health. This report was then discussed by Mr. A. Stengle, Bureau of Chemistry; Dr. Talbot Read, Health Officer of Atlantic City, New Jersey; Capt. Hawkins, New York Conservation Commission, and Dr. Carmelia, U. S. Public Health Service. This Committee report emphasized the difficulty of establishing standards of composition for oysters and recommended further work in this direction. The discussions related to the sanitary quality of oysters and conditions affecting the growth of oysters.

Mr. W. G. Tice, Chief Chemist, New Jersey Department of Health, submitted the report of the Milk Committee which reaffirmed its previous reports which have been previously reported in this Journal.

Mr. Benj. L. Purcell, President, Association of American Dairy, Food & Drug Officials, delivered an interesting address on the broader possibilities of this Association's work in consequence of the revision of the constitution admitting city officials to membership.

Dr. Craster's paper on "Municipal Food Control" was read by Mr. H. R. Baldwin, Chemist, Newark Department of Health, Newark, N. J. Discussion of this subject was participated in by Messrs. J. A. Vogelson, Philadelphia Department of Health; J. C. McNeil, Bureau of Food Inspection, Department of Health, Pittsburgh, Pa.; C. H. Wells, Health Commissioner, State Board of Health, Wilmington, Del., and Max J. Colton, Health Officer, Cumberland, Md.

Administrative problems in connection with bottled sodas were discussed by James Foust, Pennsylvania Dairy & Food Commissioner. Dr. Skinner's paper on the Sanitary Production of Bottled Sodas was read by Mr. J. W. Sale, Bureau of Chemistry, Washington, D. C., and discussed by Messrs. S. W. Bateson, Buffalo, N. Y., and Ole Salthe, New York City.

The following officers were elected for 1919:

Mr. Geo. B. Taylor, Dairy Division, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C., President; Dr. J. C. McNeil, Bureau of Food Inspection, Department of Health, Pittsburgh, Pa., secretary.

The following summary includes the principal resolution adopted:

1. An expression of the loss to food control occasioned by the untimely death of Mr. W. C. Burnet, Bureau of Chemistry, Washington, Secretary of this Association for the year 1918-19.
2. Endorsement of the uniform good egg law and uniform egg breaking establishment law proposed at the conference held at St. Louis on January 24-25 last.
3. Establishment of an egg control committee within this Association.
4. Enlarging of the scope of the Milk Committee's work to include all dairy products.

# Appreciation of Lettuce by the Ancients

AUGUSTUS CAESAR was fond of lettuce and attributed to its use his recovery from a serious illness. It is said that he afterward held this plant in such high esteem that he erected a statue and dedicated an altar to it.

In the time of Domitian, the Romans served lettuce with eggs, as we do at the present time—probably one of the most ancient of table customs. It was served with the last course, so as to stimulate the jaded appetites of the feasters.

It is strange that this estimable plant did not reach the Western world until the time of Queen Elizabeth, when it was first grown in England.

The lettuce furnishes valuable salts and vitamines, and, besides, supplies bulk which aids bowel action. It is especially to be recommended to those who have a tendency to over fatness. It should be used by such persons very freely, and with lemon juice only, oil being avoided. A large plateful should be eaten at the beginning of every meal. —*Good Health.*

# Cooperative Work Plan at Sweet-Potato Conference

THE conference of pathologists and horticulturists held in Birmingham February 26 to 28, marked an epoch in the development of the sweet-potato industry of the South. While sweet potatoes have always been one of the most important food crops of the Southern States, there has been no concerted effort to stabilize the industry or to popularize the use of sweet potatoes in the northern markets.

Under the organization planned at the Birmingham conference every phase of the sweet-potato industry will be given careful consideration. The various problems affecting the industry will be investigated and the known conditions carried to the people through the medium of the extension forces. In addition to the promotion of the industry in the Southern States it is the plan of the organization to carry on a campaign for popularizing the use of southern-grown sweets throughout the country. Some of the ablest workers in the Southern States have offered their services and the campaign will be started with the coming planting season. Careful variety trials will be made to determine those varieties best adapted both for production and marketing. Insect and disease problems and the question of proper storage and marketing facilities will be studied.

The cooperating parties include the pathological workers, horticulturists, and marketing forces of the Southern States and the United States Department of Agriculture. It is the plan to conduct the work in at least six Southern States.

# Machine To Stamp Walnuts

The California Walnut Growers' Association has offered $10,000 to the man who will invent a machine which will place the association's stamp on every walnut.

At the present the best that can be done is to stamp the sacks.

# Duty Wider Than War

We hold it in our power and ours alone, to keep the wolf from the door of the world. This duty is wider than war—it is as wide as our humanity.—*Herbert Hoover.*

Based on a Standard of Quality

FROM land and sea Armour secures the top grades of Nature's yield and prepares them so well that they are stamped with the Oval Label.

Armour's
QUALITY
PRODUCTS

In order to win this stamp of approval, every item of food included in the Oval Label line has first to pass severe chemical and dietary tests, and then finally meet with the approval of the Oval Label Committee.

This trade mark is your *grade mark* and guide to highest food quality. Look for it on Meats, Fish, Soups, Fruits, Vegetables, Pork and Beans, Condiments, Seasonings, Extracts, Peanut Butter, Evaporated Milk, Rice, Coffee, etc., etc.

ARMOUR AND COMPANY
CHICAGO

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# Annual Report of the American Sugar Refining Company

THE annual report of the American Sugar Refining Company given out recently at the stockholders' meeting at Jersey City, N. J., by President Earl D. Babst shows a total business of more than $200,000,000 and profits from operation of $6,661,683.86 after deduction of income and other taxes, or $3,393,607.55 less than those of the year 1917.

The advertising reserve has been increased $500,000, bringing that item up to $2,500,000. The company was the first large corporation to give advertising the same standing in the balance sheet as depreciation and improvement of plant. The purpose of the reserve is to make certain a continuous advertising program through good and poor years.

President Babst in his address explained the Government restrictions which existed during the year on the amount of sugar which was permitted to be used and the territory in which refiners could market their products.

The American Company's area was confined in the latter part of the year to the New England and North Atlantic States. Graphic charts in the report showing the effect of the Government zoning system are of interest as indicating the impossibility of the company's exercising a dominating influence on the sugar business of the country.

The company furnishes less than one-third of all sugar consumed in the United States and owns only six of the twenty-two cane refineries in the United States. In the restricted area allowed under Food Control it had to meet the competition of other refineries. There are 101 beet sugar factories in the country, an increase of 4 during the year.

Consumption of sugar in the United States during 1918 is shown to have been almost equal to the yearly average of the last decade and approximated 10,000 tons a day or 300,000 tons a month. The sugar ration allowed was the same in all sections of the country, although it is well known that some sections use less than others. The blanket ration reduced the consumption in some places and raised it in others, thus making the final difference but slight when viewed nationally.

The company furnished slightly more than one-half of the refined sugar exported during the year. Total exports of 150,520 tons were considerably less than for the year immediately preceding. Exports of 995,864 tons raw from Cuba to Europe were substantially the same.

The charts show that sugar is cheaper in the United States than in foreign countries and has not increased correspondingly with other staple articles of food.

## Square Cans Now

Square cans will soon displace the familiar round tin on the grocers' shelves if the recommendations of the Quartermaster's Department of of the U. S. Army is followed by canners and other manufacturers.

With every bit of available shipping space conserved it is shown that 23 per cent of the space in a square box is wasted in which round cans are packed, it being self-evident that the square can would therefore effect a tremendous saving of space.

# Laws Proposed in State Legislatures

## Continued From March Number

### Arkansas

Senate Bill No. 580 would prohibit the use of saccharin in soft drinks or ice cream. It also would fix the standards for ice cream as containing 8% butter fat except in fruit or nut ice cream which shall contain not less than 6%. It also would forbid the use of any fat but milk fat in ice cream and the use of any flavoring matter not "true to the name."

### California

House Bill No. 195 which would prohibit the sale of Cocoa-Cola and which was previously reported in these columns has been amended so as to include any substance containing the ingredients of Coca-Cola "no matter by what name called," from being sold in the state. It makes receiving, storing, importing or selling of this product a misdemeanor and provides for a fine of $100 for violation of the act, or imprisonment in the county jail. Voted out of committee and on calendar.

Senate Bill No. 390, a prohibition bill defining intoxicating liquor and which was reported in our February issue, has been amended to exempt flavoring extracts, perfumes, etc., containing no more alcohol than necessary, from the prohibition list.

### Delaware

House Bill No. 117 defining intoxicating liquors in such a way as to include practically all flavoring extracts containing alcohol, and reported in our March issue has passed the house.

### Idaho

House Bill No. 146 reported in the March issue, which would prohibit the sale of any compounds or mixtures capable of being taken internally if they contain more than 2% alcohol, has been withdrawn.

### Illinois

House Bill No. 368 would define intoxicating liquor to include all "distilled, vinous, malt, spiritous or fermented liquors or other liquors containing more than 3% alcohol.

House Bill No. 369 is practically the same as the bill above except that it exempts flavoring extracts, soda water flavors, etc., from the prohibited list.

House Bill No. 401 provides that bottlers of soft drinks must secure a license and pay $25 and soda fountain men pay $5 per year. It also would provide that all soft drinks contain not less than 8% pure sugar and that fruit flavors, grape juice, cider, etc., be made from pure fruit juices only. If artificial colors of any kind are to be used the label must state that the product is "artificially colored and flavored."

### Indiana

House Bill No. 297, which is the model Bakery Bill reported in a previous number of this magazine, passed both houses with only one dissenting vote.

### Iowa

Senate Bill No. 250 amending the law relating to sanitation in food manufactories and reported in the March issue, has passed the Senate.

### Maine

Senate Bill No. 213 would define intoxicating liquors.

### Massachusetts

Senate Bill No. 270, which would prohibit the sale of coal tar derivitives and which was reported in February, is said to have been killed in committee.

### Michigan

House Bill No. 245, reported in March, has passed the house and been referred to the prohibition committee.

House Bill No. 261 would increase the license fee for bottlers of soft drinks, etc., from $10 to $25; would forbid the use of saccharin, provide for the inspection of all bottled drinks or other non-alcoholic beverages, and provide for the proper sterilization of bottles.

### Minnesota

Senate Bill No. 543 is a prohibition bill defining intoxicating liquors.

House Bill No. 667 is a prohibition bill and defines intoxicating liquors so that it might include all flavoring extracts, etc., containing one half of one per cent of alcohol.

Senate Bill No. 721 provides for the licensing of manufacturers of soft drinks and stipulates methods for sterilizing bottles, etc.

House Bill No. 906 is similar to Senate Bill No. 721 above.

### Missouri

Senate Bill No. 316 is to create the office of State Beverage Inspector to inspect all soft drinks manufactured or sold in the state also all soda fountain syrups, flavors and extracts to be used in soft drinks. A tax of 5 cents a gallon on soft drinks, ten cents a gallon for all fountain syrups and one and one-fourth cents per ounce for flavors or extracts to be used in the manufacture or concoction of beverages not otherwise inspected, is to be levied on goods manufactured or sold in the state.

Senate Bill No. 523 imposes an annual license fee of $50 on manufacturers of ice cream who sell at wholesale and $25 on manufacturers who sell at retail.

House Bill No. 793 is an act to create a state Bureau of Dairying and to regulate the manufacture, sale and distribution of dairy products and imitations thereof. The act would give broad power to the commissioner. It also defines cream, milk and cheese and condensed cream and milk and establishes standards of purity.

### Nebraska

House Bill No. 282 is an act to amend the law relative to the production and sale of condensed milk. Action on this bill has been indefinitely postponed.

### New Jersey

House Bill No. 420 is an act to prohibit the sale of intoxicating liquors and defines them as "any alcoholic beverage containing more than four percent of alcohol.

### Pennsylvania

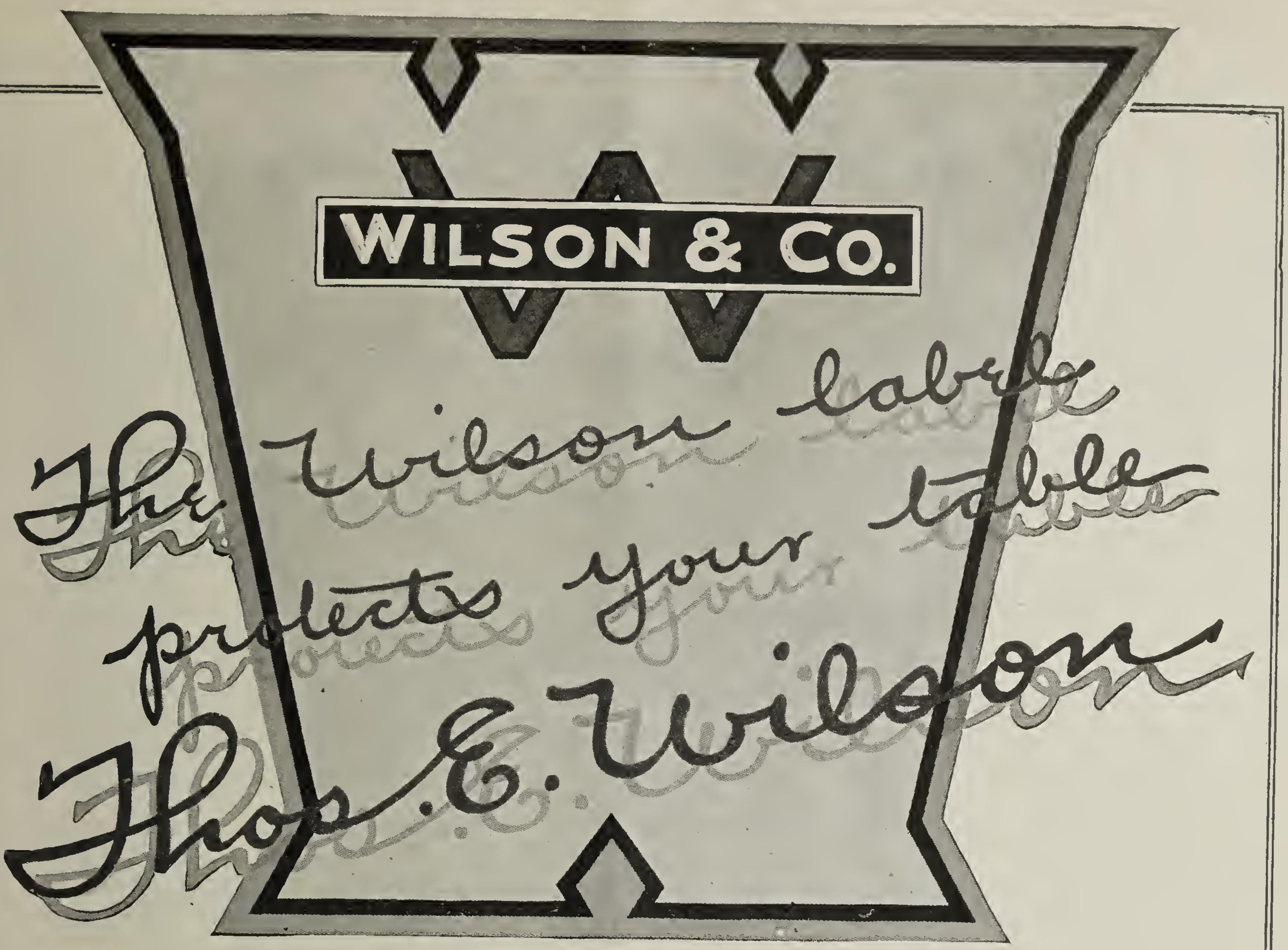
Senate Bill No. 502 is an act to reorganize the Department of Agriculture creating bureaus of Animal Industry, Plant Industry, Markets, Foods, Chemistry, and Statistics.

Senate Bill No. 555 is to amend the non-alcoholic drink law.

House Bill No. 566 is an amendment to the Food Act of 1909 and would add a clause making it lawful for millers and manufacturers of flour to treat pure white flour with nitrous dioxide gas or chlorine gas for the purpose of aging, maturing and whitening the flour when it is intended for export from the state or from the country and requires the labeling of the package when such a process is used.

House Bill No. 635 is an amendment to the pure milk law by permitting the removal or addition of

(Continued on page 40)


WILSON & CO.
The Wilson label protects your table
Thos. E. Wilson

THERE is a simple, straightforward pledge to *you*. It means that we stand back of your dealer every time you buy anything bearing the Wilson label. Our label embodies our good reputation with the public—which means that our products must have your friendship and your confidence.

⁂

The food products—meats, fruits, vegetables and table specialties—bearing the Wilson label are selected, handled and prepared with the *respect* they deserve.

WE ARE just as careful, just as thoughtful, as your own mother would be. We want our products to convince you that you cannot find anything better—and we intend that the Wilson label shall always carry that message to you *personally*.

⁂

Today the W-shaped Wilson label is the mark which tells of public favor honestly deserved and thoroughly won. More than that, it is our constant promise to respect and hold your confidence.

"This mark WILSON & CO. your guarantee"
CHICAGO

**Certified Ham and Bacon** **Clearbrook Butter and Dairy Products**
**Certified Fruits, Vegetables, Meats and Table Specialties**

*If your dealer cannot supply you with Wilson Pure Food Products, write us giving his name and address and we will arrange to provide your requirements*

**The Wilson Label Protects Your Table**

# Canners Inspection System Is Now Working

THE plan to better the grade of canned products which has long been considered by the canners and which was definitely formulated at the annual convention of the National Canners Association held in Chicago in January has so far been put into practice that the greater portion of the 1919 pack will be inspected and if up to the required grade will be Okeyed by officials of the organization.

A meeting of the inspection committee of the National Canners' Association was held at Washington recently at which details of the inspection policy were agreed upon and on the basis of which contracts with the various canners are being made. Canners will pay into the fund a fee of ½c per case of the 1918 pack. subject to rebate if not all needed, and there will be employed district inspectors and supervisors; also there will be established laboratories in each district for technical examinations. Ultimately there will be undertaken an elaborate publicity campaign to add value to the certification which officially endorsed goods will carry.

## Sanitation of Plants

As decided upon at the recent conference in Washington, the inspection will cover sanitation of plants and materials, as well as finished products as to standard quality. The only standard of quality thus far announced is for peas and is the same as promulgated by the Federal Department of Agriculture on February 15, 1918. The other standards will be announced shortly. Among the rules decided upon for sanitation are the following:

Factories shall be located so as to be able to receive and distribute their products promptly, without danger of damage or deterioration, and shall not be located in the immediate vicinity of any other industry, which may be objectionable because of noxious odors given off, or because of the use of decomposed products.

## Factory Location

No food factory shall be located in an unsanitary place. or one which cannot be made sanitary, or maintained in a sanitary condition.

No food factory shall be located where the refuse from the plant cannot be disposed of in a sanitary manner and not itself become a nuisance to the factory.

No litter, waste, refuse or decomposed products shall be allowed to accumulate in or around the buildings or yards. All liquid waste shall be conducted from the building by means of suitable drains. Gross by-products suitable for other usage, as pea vines or corn husks, may be stacked or placed in silos separate from the building, and must be properly drained. Raw tomato skins, cores, etc., shall not be permitted to be piled near the factory.

## Light Rooms

All buildings used for the manufacture of food products shall be clean, properly lighted and ventilated. The ceilings shall be of sufficient height to permit ample clearance for all work under any suspended shafting, hangers, piping, galleries, etc. Where natural light and ventilation are insufficient, provision must be made for augmenting the same by mechanical methods. The interiors of all working rooms shall be kept a light color by paint, whitewash or other suitable method.

The floors of all rooms used for manufacturing should be watertight and pitched enough to carry all waste to the sewers.

All scalders, blanchers and tanks of water in which a product is held —as tomatoes before scalding and peaches and pears before filling into cans—shall be provided with a continuous fresh supply and an overflow.

No cans shall be brined or syruped by passing through a tank to receive the brine, syrup or water, by submergence—"dip tank."

## Clean Utensils

All tables, pails, pans. trays, utensils. conveyors, machines floors etc., shall be cleaned with steam and water at the close of each day and as much oftener as is necessary to prevent souring or unsanitary conditions. There shall be ample water and steam supply to keep the factory clean.

Roadways about the factory shall be sprinkled oiled or otherwise treated to prevent dust.

Only potable water shall be used in making syrup, or brine, or in washing equipment coming in contact with food.

Cans must be washed immediately before being filled.

All fruits and vegetables shall be washed before canning.

Toilet rooms must be maintained, and where different sexes are employed they must be separate for each sex. Toilet rooms, including the walls, floors, ceilings and all fixtures must be kept clean, provided with sanitary paper, open to outside light and air and be of sufficient size and equipment for the number of people employed. Where toilet rooms are in the factory, they must be supplied with proper flushing appliance and connected with a sewer. Outside closets must be sufficiently removed from the factory to avoid being a nuisance, and built tight above the ground, properly ventilated, lighted and screened.

## Good Wash Rooms

Wash rooms must be provided for the accommodation of all employes and separated for sexes, equipped with individual or sanitary towels and plenty of soap.

Sanitary drinking fountains shall be conveniently placed for employes and common drinking cups prohibited.

Where a change of clothes for work is necessary, dressing rooms must be provided, and hangers or lockers provided for street clothes.

No persons afflicted with infectious or contagious disease or infected wounds shall be employed in a factory preparing or canning food.

Employes are prohibited from using tobacco and from spitting on the floors.

Employes must be properly clothed for the work to be done.

Employes shall keep the finger nails clean and short, and wash their hands before commencing work, and after each absence from the room.

Any dispute between an inspector and a canner, relative to these rules and regulations, shall be referred to the Chief Inspector of each state, it being understood, however, that the canners shall have the right to appeal from any decision of the Chief Inspector to the National Canners' Association.

# CORN

## The King of American Cereals

It is the great American staple today as it was with the Indians, but we have learned ways of using corn that our forefathers never dreamed of.

During the recent war period, CORN really had the opportunity of gaining its deserved place, for had it not been for Corn and the many uses to which American ingenuity adapted it, the food situation would have been alarming. Few gifts of nature have been found more useful to mankind.

Among the most popular ways corn is utilized is in producing

## Corn Starch Corn Syrup
## Corn Sugar Corn Oil

**Corn Starch**—laundry—lump—or edible—has grown to be a household necessity.

**Corn Syrup**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

**Corn Sugar**—has its place with the ice cream manufacturer, the physician and the baker.

**Corn Oil**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. CORN OIL has made a distinct place in the home.

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A. E. Staley Mfg. Company, Decatur, Ill.
Union Starch & Refining Co., Edinburg, Ind.

# How to Remedy Defects of Distribution

EVOLUTION of the methods of distributing foods, and not revolution, is demanded, according to Dr. Eugene H. Porter, commissioner of foods and markets, who has just presented his annual report for the Division of Foods and Markets to the New York State legislature. The problem is how to remedy the weaknesses and defects and not how, by violent revolution, the present system can be overturned and another substituted for it. It is only with the fullest cooperation and a sympathetic understanding of the points of view of the different interests involved, that the task can be accomplished.

Commissioner Porter calls attention to the fact that much has been said for some time past about cutting out the middleman and distributing goods direct from the producer to the consumer. Such a method is available to comparatively few farmers, as only a few can truck their produce to a near by city. Popular writers and demagogic speakers, says Dr. Porter, frequently dwell on the fact that the farmer receives only thirty-five cents out of the dollar that the consumer pays for goods. This is altogether too sweeping a statement. It may be true in a few instances with regard to certain perishable crops that have to be disposed of immediately, but for butter, the farmer receives seventy-seven cents on the dollar; for livestock, fifty-eight cents on the dollar, and for wheat, ninety cents on the dollar. It is not always the number of middlemen involved that determines the returns to the farmer or the price to the consumer.

### Most Important Industry

According to Dr. Porter there is no industry of greater importance to the State of New York than the production and distribution of milk. New York State leads in the quantity of milk produced, so that any interference with production, whether due to economic or regulative causes, affects the interests of thousands of farmers and the teeming populations of our big cities, especially New York, are vitally concerned in receiving an uninterrupted flow of wholesome milk at reasonable prices. In his report, Dr. Porter refers to the numerous investigations into the cost of production and distribution of milk, that have been made and to that now being conducted by the Council of Farms and Markets.

Believing it to be essential to have a knowledge of the market conditions of the cities of New York State, Dr. Porter's Division of Foods and Markets is making a survey of the cities whose population is ten thousand and over, for the purpose of ascertaining the exact situation in and around each such city, and determining the adequacy of the present market facilities and the need for any extension.

### Consumer Considered

Dr. Porter says that the Division of Foods and Markets has not lost sight of the consumer. Every step taken to aid the farmer in marketing his produce will ultimately help the consumer. He has in mind, however, some direct steps to be taken for the consumer's benefit, some of which have already been given consideration, including farmers' markets, direct purchase of products by parcels post and express, and cooperative buying.

The consumers' cooperative movement has not made much progress in New York State, but in connection with a number of manufacturing and mercantile concerns, consumers' buying clubs have been operated with more or less success. Neighborhood and settlement workers have alone done some work along the line of cooperative purchasing. Such organizations are confronted with a number of difficulties, and Commissioner Porter's bureau chiefs have held a number of conferences with the leaders of such organizations to improve the facilities for direct dealing between producers and these collective clubs.

During 1918, the cold storage inspectors of the Division of Foods and Markets made nine hundred thirty-one inspections of cold storage warehouses, as a result of which sixty-one violations of the public health law were found.

Considerable space in Commissioner Porter's report is given to the work of his Bureau of Cooperative Associations. Cooperation in some form or other, says Dr. Porter, is to be the chief characteristics of commercial activity within the next few years. In the supply of foodstuffs of various sorts for the table, large cooperative groups of producers in various states have shown their ability, through collective action, to find a good market for their output, so that even from the standpoint of meeting competition, the growers of New York State must get together and pool their interests. The sale of produce through cooperative associations leads to improved production and the standardizing and grading of the crop, and this in itself is a very important feature in successful marketing.

The field for cooperative effort among farmers is almost beyond limit, says Dr. Porter. If fostered and placed on a solid foundation, it will do much to develop the vast agricultural resources of the state and redound to the benefit of both the producers and consumers, because it will lower the cost of production and distribution.

The Bureau of Licenses collected for producers $11,136.70 from delinquent commission merchants and milk dealers.

### A Busy Bureau

The Bureau of Food Standardization made 2,525 analyses during 1918, of which 714 were milk, 257 olive and edible oils, 248 baking powder, 160 candy, 146 butter and oleomargarine, 117 cocoa, and the remainder miscellaneous foods.

The high prices of eggs during war times brought forth a flood of so-called egg substitutes. Many of these preparations consist of a mixture of starch and baking powder ingredients colored yellow. Dr. Porter has ruled that an article that does not contain powdered egg, or which contains powdered egg and other ingredients is misbranded, if labeled "egg powder" without modification. An article of food should not be labeled "egg substitute" or otherwise labeled so as to indicate that it will take the place of eggs, unless the article posseses the property of eggs.

The commissioner reports that he is making a special investigation of the olive oil situation. Owing to the embargo on the importation of olive oil, much so-called olive oil, actually consisting wholly or very largely of

# Dehydrated Vegetables

Parties interested in their
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cotton seed oil, peanut oil and corn oil, has found its way upon the market.

Commissioner Porter is seriously considering the standardization of all packages of commodities. He suggests that no commodity should be sold when packed in containers except in one-half pound, one pound and the multiples of pound sizes. This will lessen the temptation of the dishonest or unscrupulous packer to sell a seven-ounce package which the consumer thinks is a half pound, or fourteen ounces for a pound. Few consumers ever look at the net weight as marked on the package at present.

Among the work which Commissioner Porter has planned for the current year is included a study of the marketing problem in New York City, with a view (1) to working with the city authorities and distributors to eliminate or lessen present evils wherever possible; (2) to improve terminal facilities; (3) to extend the usefulness of local markets; and (4) to encourage the formation of consumers' organizations and assist them in purchasing the supplies they need. Dr. Porter also contemplates a study of country marketing and of the wholesale and retail distributing trade, and of transportation, with a view to discovering existing defects and finding the remedy for them.

---

## Cold Storage for Whale Meat

The following extracts from a letter received by the Commercial Intelligence branch of the Canadian Department of Trade and Commerce, from a British Columbian concern, are interesting:

Owing to the demand for whale meat for food we have erected a cannery, where we expect to pack 30,000 to 50,000 cases of whale meat this season. We have also erected three cold-storage plants to handle frozen whale meat. We also own and operate two freight steamers, one of which has a cold storage capacity of 500 tons. The species of whales taken on this coast yields three to twelve tons of prime meat, and only the prime meat is used by us at the present time for canning or freezing meat for food. For the frozen product, we already have orders for over 1,000 tons, the bulk of which is being shipped to Boston.

---

To provide your "turn-around" fund for future emergencies—buy W. S. S.

## Canadians Investigate Dehydration

THE Canadian Research Council has taken a deep interest in the work in progress at Columbia University for some time past in dehydration as a conservation measure and has just obtained a direct report on certain phases of the work, with a view to putting dehydration into operation for the more economical shipment of foods abroad and for preserving food in time of plenty and glut.

The report received by the Canadian Research Council from the expert in charge of the work at Columbia University describes the results, in part, as follows:

"The meat for drying has the bone, connective tissue and surplus fat removed and cut into steaks or stew pieces, preferably not exceeding two inches in thickness. It is then dried in a vacuum oven heated to a moderate temperature, the time required being from six to twelve hours, depending on the thickness of the meat. The meat is dried down to a weight of approximately 35 per cent of its original weight, and this, by storing in ordinary cloth sacks, will continue to dry down to a limit of approximately 30 per cent of its original weight. If desired, the drying to 30 per cent can be completed in the vacuum oven, but there is no advantage in doing this.

"The meat so obtained, with the exception of any surface contamination, is sterile and free from bacteria. It can be stored and shipped in wooden boxes, paper cartons or cloth sacks to any climate. Some of the first meat dried a year ago is still in the best condition, and apparently has not suffered a deterioration in the slightest. As compared with chilled meat, the saving in weight shipped is more than 90 per cent of the present requirements, including the weight of the refrigeration appliances.

"Meat so preserved undergoes no change during the drying process or later storage, detectable by chemical tests. In other words, there is no evidence of change of nutritional value from that of the original fresh meat. The method so far has not been entirely satisfactory, as applied to thick pieces such as are customarily used for roasts. It is satisfactory for fish, both in the flat and as steaks.

"The method has also been applied to vegetables and has distinct advantages over the customary method of drying vegetables so far as quality of product is concerned. The equipment necessary and the cost of carrying out the process do not exceed the cost of a refrigerator plant and refrigeration process in a plant of equal capacity. The plant requirement is of standard equipment readily available commercially in the United States, though of course not of the type customarily used in the meat packing industry."

## Milk as a Meat Substitute

Milk is a food classed with the protein group, namely, meat, eggs, cheese and poultry and for that reason should be regarded as a very important article in any diet. When a quantity of milk is used in the making of dishes composing the main part of a meal, it is not necessary to use meat, for the milk supplies the protein, the building material, required by the body. For example, when serving custard or cream soups in a meal the amount of protein furnished by other foods should be reduced.

The child should be given "a quart of milk a day" from babyhood to school age in place of meat as the milk is much more easily digested by the child. "Because a baby is not made violently ill by meat, tea or coffee, sweet crackers, and what not, it does not follow that he has not been injured." While the price of whole milk may be high at the present time, under no circumstances should the supply for the child be reduced.

Milk should never be cooked at a high temperature. The double boiler should be used when making soups, custards and cocoa. In baking a dish composed largely of milk, set the dish in a pan of water. The high temperature causes the milk to be less easily digested.

Milk should be kept in a cool clean place and preferably in closed receptacles. Milk absorbs odors easily and should not be placed in an icebox with other strong-smelling foods.

Milk powders and evaporated milks on the market may be used successfully in cookery, but will never replace fresh whole milk when obtainable.

# Stand up and be counted

YOU who are thankful that this war is over—stand up and be counted. You who feel it was worth it to spend billions of dollars to save millions of men—come forth and answer.

You to whom kith and kin are dear —who see your loved ones returning safe and sound—-show that your thanks is of the heart and real.

Let's pay the bill clean. Let's show our sense of honor is keen when the job is done, even though martial music and the stirring tramp of serried rows are dumb.

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# Fish as a Poor Man's Food

*By Frederick Roche*

FISH is the poor man's food in the United States, an authority stated sometime since. Indications are that fish will be the food of the majority of the people of the country during the reconstruction period. It is unfortunate that this critical period should come when the fisheries themselves are in a state of reconstruction and adjustment. However, a general lowering of fish prices lends hope to the situation.

The chief problem before the fisheries just now is to get their product to the poor man of the inland states who bids fair to become a strict vegetarian, if this relief is not afforded him. Thanks to the rapid advances made in the science of refrigeration in the last few years, the problem of supplying the inland inhabitants with seafood is now one only of transportation and education.

Wholesale fish dealers have found the answer to the transportation problem in the carload shipment. The cheapest and most satisfactory way to ship fish is in carload lots. Before this, however, can attain its full value, there must be established a system of community buying in connection with it. There are very few fish dealers in the country, if any, able to handle a carload of fish unaided. But if all the retailers of any given area band together, they can easily dispose of a carload. This would lead in time to the establishment of distributing points to which carloads of seafood would be shipped at regular intervals. This plan, long advocated by William K. Beardsley, former manager of the New England Fish Exchange, would bring to the store of the inland retailer fish at a price very slightly higher than that prevailing in Boston.

Experiments are being made at the present time with carload shipments. The other problem, that of educating the inland public to the use of fish, can be solved only with the co-operation of the people most concerned. Whether they will learn readily or will follow the example of the coastwise populace and remain deaf so long as their pocketbooks permit remains to be seen.

# Grocers Act on Swells

AT a special meeting of the United Retail Grocers' Association of Brooklyn recently for the general discussion of the question of "Swell Canned Goods" in connection with certain prosecutions by the Board of Health, a resolution was adopted by which the grocers went on record as favoring the adoption of a percentage allowance for swelled canned goods.

The argument presented was that this allowance would permit the retailers to destroy and throw away all swells which they found in their stock—it being assumed that the percentage allowance would cover the actual amount of swells found by the dealer.

This would do away with the retailer being obliged to hold in some part of his warehouse swelled canned goods which are always subject to seizure by an inspector of the Board of Health and prosecution, fine or trouble of some sort, all of which has been occurring to such an extent as to seriously inconvenience and damage the retail grocery business.

Naturally, as far as the wholesaler is concerned, it would be an enormous saving. It would do away with all the inconvenience, trouble, expense, as well as the following details:

1. The examining of swells by salesmen in the retail store.
2. The making out of a return goods memorandum, which must come to the wholesaler's house.
3. The checking of this return goods slip by some buyer authorized by the house.
4. The giving of this return goods slip to the driver.
5. The driver going to the retailer's store and again examining these same swells.
6. The retailer being called away from his business to go down to his cellar or warehouse and show the driver where these swells are.
7. The driver bringing the swells back to the wholesaler's store.
8. The wholesaler making out a receiving slip.
9. The receiving slip going to the office and a return goods credit being made out.
10. The return goods credit being placed on the general ledger.

11-20. Same programme with the canner.

All of this can be obviated and done away with, it is claimed, by "allowance percentage for swells" to the wholesale and retail grocery trade.

# Says Crates Should Be Smaller

MR. ARJAY DAVIES, the Pennsylvania wholesale grocer who is president of the National Wholesale Grocers' Association, believes that as part of the reconstruction process now going on throughout the trade, manufacturers of package goods should cut down the size of their cases. The following is from a statement recently made by Mr. Davies on the subject:

"The things that stand out most in my mind is the demand for smaller cases of goods that the high prices of the war period induced, and it seems to me that manufacturers should take account of this situation. Aside from the heavy labor cost, every time their cases are broken in the warehouses of the wholesalers and goods are shipped out in assortments, they lose all the advertising value that their large container had.

"Higher prices were, of course, the main reason for the grocer buying in smaller lots. Usually he had to buy with the same capital he had before the war, and being unable to buy as much as formerly, he had to spread his money out more and buy smaller lots. Take Cream of Wheat as an example. It comes in cases of thirty-six packages, whereas in our experience at least the average grocer prefers to buy twelve to eighteen packages. It was once a 15-cent seller, but now sells for considerably more.

"Campbell's Soups come in cases of four dozen cans. While the general run of grocers buy Campbell's in case lots, they generally want an assortment, and the truth is that in our trade we have to break 85 per cent of Campbell's cases in order to give our trade the assortment they ask for. In a recent survey among the wholesalers, 62 per cent held for smaller cases on eighteen kinds of goods that this firm packs. While the Campbell company does furnish assorted cases, usually these are not in the combination that the grocer wants."

## Horse and Goat Meat Tagged

The sale of horse meat under the name of beef, and the sale of goat meat under the name of lamb or mutton, will be prohibited in the State of Missouri, if a bill introduced in the senate last week by Senator Elder is passed. The bill provides that such meats may be sold only when properly tagged.

## Peanut Proteins

(Continued from page 21)

in the quantity of other food consumed.

Digestion experiments on peanut flour have been made by the Office of Home Economics of the Department of Agriculture. The flour was fed to men in the form of biscuits which contained a much higher proportion of peanut flour than would ordinarily be used in a diet. The results show that the digestibility of the peanut proteins is about equal to that of the cereal proteins. The following digestibility coefficients were found for some of the different ingredients of the peanut. The figures are given in per cent:

| | |
|---|---|
| Protein | 89 |
| Fat | 96 |
| Carbohydrate | 97 |

The experiments cited above show that the peanut is a valuable food. It is not only rich in proteins, but those present contain all the essential amino acids in proportions which will promote normal growth without the addition of other proteins. The peanut, therefore, may well constitute an important part of the human dietary.—Reprinted from the Cotton Seed Press.

## Some Unfair Practices

Charles Wesley Dunn, Counsel for the American Specialty Manufacturers Association, has compiled a list of unfair practices based upon several decisions of the Federal Trade Commission during the past year. A few of these practices which are now prohibited are still being practiced in some instances, where the purpose, intent and effect of suppressing, stifling and destroying competition is shown. They are:

Selling below cost providing other goods are purchased upon which a profit is made.

Price cutting in certain localities.

Selling direct to consumers to compel retailers to handle exclusive brands.

Price fixing through contract and combinations.

False and misleading advertising and misbranding.

Public black lists.

Inducing and compelling manufacturers not to recognize certain dealers as entitled to buy at jobber's prices.

Dividing territory and limiting selling area.

Discrimination in price between purchasers or localities.

Failure to fulfill contracts because of advance in the market price and the surreptitious marketing of such products through other channels at a higher price.

Special rebates for selling manufacturer's goods exclusively.

## Cotton Seed Convention

The 1919 annual convention of the Interstate Cotton Seed Crushers' Association will be held at the Grunewald Hotel, New Orleans, La., Monday, Tuesday and Wednesday, May 19, 20 and 21. The executive committee met at New Orleans March 22 and decided on place and time as above. The rules committee will meet in advance, as usual Friday and Saturday, May 16 and 17.

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## Margarines Have Right to a Free Market

(Continued from page 12)

elements, Fat Soluble A and Water Soluble B in them. Following this theory through as to the effect on the human race he has shown that much of the physical and mental weakness and inability to resist disease of the human race is due to not eating enough of the kinds of food which contain these vitamines. He also holds that most of the vitamines to be found in milk are in the milk fat.

This theory is used by the dairy men as an argument against the margarines and other products that would take the place of a dairy product but which are not made entirely from whole milk.

There can be no quarrel with the vitamine theory. It has been proven that vitamines do exist in certain articles of food, albeit we do not know yet just what vitamines are and we do not know as yet the exact quantity or number of vitamines in each of the foods. There is, however, a very serious objection to the way in which this vitamine theory is being used by the butter people and the conclusions that they draw from it.

### Butter Not Necessary

In their arguments before many of the state legislatures and in the literature which they have circulated the butter men or the dairy men (the same group) have persistently sought to create the impression that butter is a necessary article of the diet because it contains the vitamines and that there is a grave danger to the race in permitting the use of margarine because it either contains no vitamines or not as much of this element as butter contains. As a matter of fact neither butter nor margarine is necessary to the diet. Neither is a whole food. Both are wholesome, nutricious additions to the diet and each is used principally to make bread more palatable because of a trained appetite.

Now milk is a whole food. It is essential to infants and children and should be used more extensively than it is by older people because in milk you get not only the vitamines that you get in butter but also the other food elements; protein, carbohydrates and mineral salts which are absent or present only in a limited degree in butter.

Statistics recently issued by the United States Bureau of Crop Estimates show that the production of milk on the farms of this country in 1918 was 11,044,000,000 gallons. This they say should be increased about five per cent to allow for the milk produced from cows in the villages and cities which would make it 11,596,200,000 gallons. Divide this by 105,000,000, the number of people in this country, and we find that the production of milk last year was about 110.44 gallons per person per year which reduced further shows that each man, woman and child in this country could have about one and one-fourth quarts per day if none was made into butter, cheese or other dairy products and if none was shipped abroad to help out the terrific milk shortage in Europe.

### Need More Milk

Of course we are shipping milk to Europe and must continue to do so if we are to meet our obligation to help feed Europe, and this reduces the portion to each person in this country to the very minimum which scientists and dietitians say is necessary to the development of the race.

Now, if we accept the theory of Dr. McCullom that milk is so important an article of food, does this not lead logically to the assumption that too much emphasis is being placed on the value of butter and if we carry this theory to its logical conclusion we should insist upon the discontinuance of the making of butter, cheese and other dairy products and keep all of the milk for consumption in its natural form.

But of course the people *will* have a spread for their bread. Therefore it is economically right that at least a large part of this spread for the bread should be made from fats other than milk fats so as to relieve the strain on this scarce product. Every pound of butter made today causes a waste of the food elements in the skimmed milk left after the butter is made because the skimmed milk is not being used entirely for human food. Also there is an immense quantity of animal oils from the animals slaughtered for meat purposes and vegetable oils from our southern peanut and cotton seed oil factories which should be used in this spread for bread and which margarines do use.

Therefore margarine has a definite and valuable place in our menu and it has earned its right to an even chance with butter, to say the least, in the markets of the world. If the people prefer to have it colored yellow they should have the same right to buy it that way without paying an extra price that they have always enjoyed in the purchase of colored butter.

## Proposed Laws

(Continued from page 30)

cream to milk to standardize the product, provided the butter fat content is not lowered below 3 percent.

House Bill No. 695 is an amendment to the Pure Food law similar to House Bill No. 566 above.

House Bill No. 946 would amend the non-alcoholic drink law by prohibiting the presence of more than one-half of one percent of alcohol in soft drinks.

House Bill No. 974 is an amendment to the adulterated sausage law and fixes the water content of sausages.

### Ohio

House Bill No. 252 is to establish ice cream standards and forbids the use of boric acid, formaldehyde, saccharin or any other substance deleterious to health.

House Bill No. 398 would require bottlers of soft drinks to secure a state license and gives the Secretary of Agriculture power to refuse same if sanitary conditions of the factory are not proper. It also, in the definition of soft drinks prohibits the use of saccharin.

### Tennessee

House Bill No. 240 prohibiting sale of Coca-Cola has been rejected.

### West Virginia

Senate Bill No. 7 is an act requiring a license for manufacturers or wholesalers of soft drinks and soda fountain beverages.

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## Cheese As a Food

American cheddar cheese constitutes a palatable and nourishing food that deserves wider use in the family menu. Digestion experiments have proven it of high food value.

Many persons incorrectly assume that cheddar cheese is indigestible and constipating. Experiments conducted by the U. S. Department of Agriculture and other agencies have proven that this is not true. Ninety-five percent of the protein content of cheddar cheese is digestible and ninety percent of its fuel or energy value is available. Cheese is one of the best substitutes for meat and is usually cheaper than meat.

Experiments have proven that one pound of cheddar cheese has as much protein as any of the following: 1.57 pounds of sirloin steak 1.35 pounds of round steak, 1.89 pounds of fowl, 1.79 pounds smoked ham. Cheese is but one item of the important debt that we owe to the cow.—*Extension Service, Connecticut Agricultural College, Storrs.*

## Hens Lay Well on a Fish Diet

Frozen fish has been substituted for meat scraps and meat meal as a source of protein in chicken feeds at the Northeast demonstration farm and experiment station with good results in the egg yield.

M. J. Thompson, superintendent of the station, says that he was forced to make the change on account of the high price of meat scraps and meat meal. The fish used is that which was caught perhaps a year ago and placed in cold storage and which, on account of staleness, could not be sold for human consumption. This is purchased in cakes weighing 50 pounds at one cent a pound. As meat scraps sell for 6 cents a pound wholesale, and as it is necessary only to double the amount of fish scraps fed, the use of fish reduces the cost of the protein ration two-thirds, and hens show a keen liking for the substitute.

Mr. Thompson suggests that in the Lake Superior district and at inland points where fish are available, the use of fish be tried. He thinks that ultimately drying plants will be established for the handling of fish for chicken feed commercially.

## Millers Will Meet

The Community Millers' Association of America will hold its annual convention at Louisville, Ky., May 19-23. Armory Hall has been secured for the convention meeting place, and in addition to the regular convention features there will be held an exhibit of milling machinery and supplies. Preparations are being made for the entertainment of 5,000 delegates.

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Of the total number of farms in the United States, according to the last Federal census, the number worked by owners was shown to be 3,948,722; the number operated by managers, 58,104; and the number operated by tenants 2,354,676.

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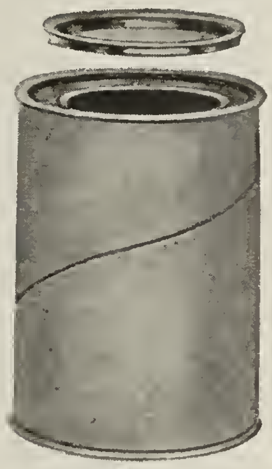

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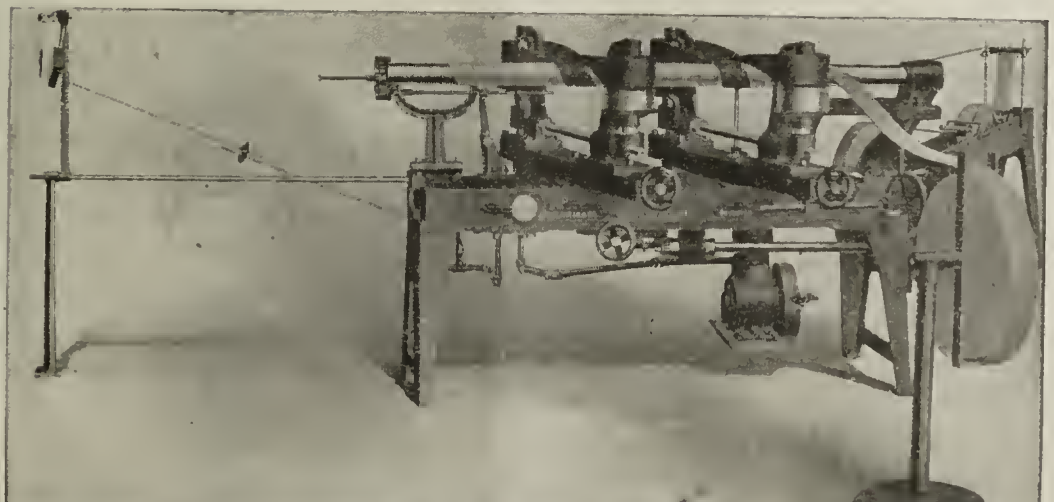

# Sugar a Natural Stimulant

*By Frederick W. Murphy*

*Chief Chemist in charge of Service Bureau, American Sugar Refining Co., New York*

THE complexities of the wants of man are in proportion to his activities. His life is one long continual struggle to satisfy his cravings. These cravings manifest themselves in various ways according to environment. In one, it may be gratification of sensory desires; in another, mental gratification; but whatever wants are evidenced, they can be classed under three headings: (1) The desire for those things which are necessities for continued activity in the sphere in which the individual exists; (2) the sensory desires of those which lend themselves to the pleasures of life; (3) those desires or wants which can be called social—love of distinction, honor or fame.

Economists have written much upon the superfluities of life, and whereas once sugar was classified as a superfluity, today the physiologist has disproved the economist and placed this commodity in the first class referred to above—a necessity for the continual activity of life. Sugar must naturally fall also in the second class, for the inherent hunger for sweetness is a desire for a sensory gratification.

Alcoholic beverages have always been referred to as stimulants. A stimulant is anything that "produces rapid transient increase of vital energy in the organism or some part of it." From this one can readily see the multitudinous number of commodities which can be called stimulants. We have the drugs, some of which stimulate certain organs of the body; some energize a muscle; others affect the brain; but in general it can be said that their administration must be through the digestive system.

Foods are stimulants, some to a greater degree than others. Food performs various functions, two of which are the rebuilding of exhausted tissue and the furnishing of heat, which is a form of energy, to the body. To perform these functions the digestive system—which man as a rule treats with utmost discourtesy—must perform a certain amount of work.

Sugar is one of the most easily digested of foods. The acids of the stomach change the cane sugar to two sugars, levulose and dextrose. Voila! You have almost instant increased energy.

Sugar is a perfect stimulant and a necessary food. It satisfies a sensory desire—sweetness—one of the true tastes, of which there are but four: acid, bitter, salt, sweet. The activity and endurance of the armies have long been recognized to be increased by the plentiful ration of sugar and sweetened foods.

The prohibition mandate will make it compulsory for everyone to use some other form of stimulant than alcohol. There are five stimulating commodities which unquestionably will be chosen to take the place of alcoholic beverages. I refer to the commodities which owe their universal consumption to sugar, i. e., tea, coffee, candy and non-alcoholic drinks and cakes.

It is remarkable that sugar is closely allied to these stimulating commodities. Sugar is the basis of the product or it exerts a controlling influence on its consumption. Interdependence is very marked in the latter case. It is apparent that space will not permit a lengthy treatise on the association with and dependency of tea, coffee and cocoa upon sugar. It is sufficient to say that but for tea, coffee and cocoa, sugar in the early centuries would not have increased in consumption so rapidly, and likewise, but for sugar, the tremendous consumption of tea, coffee and cocoa would not have grown to such a remarketable volume.

In comparing sugar with alcohol, it is a most remarkable thing that alcohol in alcoholic beverages must be made from some member of the sugar family.

The unfermented beverages are rapid energizers, due to the sugar contained. If these beverages were made of water, flavoring and an artificial sweetener, their popularity would not have lasted, but it is the renewed vitality which one perhaps unconsciously gets which makes these products most valuable.

Candy is another stimulant. The tons upon tons of chocolate consumed by the armies "over there" bears testimony to the efficiency of sugar as a stimulant. Statistics show that candy has always replaced alcoholic beverages in those sections which have "gone dry," and the consumption has gone up in leaps and bounds.

The question will be asked, Why is sugar such a great stimulant? The answer is: Sugar is one of the most easily digested foods. It produces heat—1810 calories per pound. Heat is a form of energy.

The five commodities I have mentioned will be the most popular stimulants when prohibition is in force. But the basic stimulant will be the sugar they contain and any product which contains sugar will be popular.

The British are farmers as well as fighters. Great Britain's war agriculture in 1918 increased her home-grown bread supplies four-fold, says the commission sent by the United States to Europe to investigate agricultural conditions.

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*"I'se in town, Honey!"*

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## So-Called Olive Oils Falsely Labeled

SEVERAL seizures have been made and a number of prosecutions instituted as a result of a campaign inaugurated by the officials charged with the enforcement of the Federal Food and Drugs Act against the interstate shipment of adulterated and misbranded olive oil.

Consumers are advised by the Bureau of Chemistry, United States Department of Agriculture, to read carefully the labels of all containers offered to them as containing olive oil to determine whether the manufacturer actually claims that the product is olive oil or merely suggests it by misleading devices. Some of these deceptively labeled products are sold by itinerant peddlers.

Cottonseed oil, corn oil, peanut oil soy-bean oil, and other vegetable oils are wholesome, palatable oils, but they should be bought under their own names at prices much lower than the prices at which olive oil is usually sold.

Owing to the scarcity and high price of olive oil a number of dealers were putting on the market cottonseed, corn and other vegetable oils labeled as olive oil. As the result of a large number of seizures of these products and prosecutions pending against the responsible parties, the practice has been generally discontinued. Some dealers, however, are endeavoring to continue to reap the large profits involved and hope to escape the penalties of the Food and Drugs Act by so wording the labels of their product as to convey the impression to the consumer that the product is olive oil without stating directly on the label that it is olive oil.

These products are commonly labeled as "Salad Oil" or "Table Oil." or some other indefinite kind of oil. On the labels are displayed conspicuous pictures of olive trees, or maps of Italy or other devices intended to suggest olive oil. In some instances, the words "Cottonseed Oil" or "Corn Oil" are printed in very small type in an inconspicuous place on the label. A cursory reading of the label, such as is usually given by retail purchasers, would lead the average person to believe that the product was olive oil. Only the most careful scrutiny and exact reading will reveal that the product is not labeled olive oil, and in fact is not olive oil.

The practice of deceptive labeling, even though not directly false statements are made is, in the opinion of the officials, a violation of the Food and Drugs Act. Seizures are being made and prosecutions instituted to check also this form of deception and misbranding.

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Admiral Dewey, on being complimented on his superb health, smiled and said: "I attribute my good condition to plenty of exercise and no banquets. One-third of what we eat, you know, enables us to live."

"In that case," said his friend, "what becomes of the other two-thirds?"

"Oh," said the admiral, "that enables the doctor to live."

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While there are many varieties and great quantities of curious fish in the depths of the ocean (some have been trawled up from three miles or more), none of these is eatable. The limit to which fish fit for food is found is 1,600 feet.

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The motor truck as a medium for the carriage of farm products is now assuming a permanent place in the general scheme of transportation.

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## Department Instructs On Celery Storage

If celery is packed in small, well-ventilated crates and carefully handled, it will keep in good cold storage for three months, or longer, according to results obtained in a four-year test just reported by the United States Department of Agriculture in Bulletin 579, "Celery Storage Experiments."

It is believed that as a result of these experiments it will be much easier for growers and dealers to obtain cold storage for celery. Heretofore it has been difficult to secure space for this product because the celery often spoiled, largely because of careless handling, thereby prejudicing storage house operators who prefer to handle other products. The old method of storing celery in the field and in houses of the cellar and semi-cellar type is not satisfactory because temperature and moisture conditions can not be controlled.

The objects of the experimental work with celery storage, begun several years ago, were to determine the factors which hasten decay in celery in storage houses; to learn the best methods of reducing the loss of celery in storage due to decay and mechanical injury; to determine the best type of crate in which to pack celery to be held in a cold storage warehouse; and to study the effect of the temperature of the storage room on the keeping quality of the celery.

The celery used in the experiments during the four years was grown and stored in western New York. Each experimental lot was packed in the field and crated in the storage house by representatives of the Department of Agriculture. In every instance the celery used was free from disease and was so handled that the different lots were comparable. Six types of crates were used—a standard crate, a partition-ventilated crate, a 16-inch crate, a 14-inch crate, a 10-inch and an 11-inch crate.

The smaller crates appear to remove the two chief causes of spoilage—poor ventilation and breakage. In every instance the decay was much less in the small and partitioned crates, say the specialists, in summarizing the results of the tests. Of the crates used during two or more years, the 14-inch crates gave the best results, followed by the 16-inch, the partitioned, and the 11-inch solid head, in the order given. Small crates cost a little more than the standard crate in proportion to their capacity, but this disadvantage is more than offset by the smaller percentage of breakage. In a market test made in January, 1916, celery in small crates sold for a much higher price than similar celery in standard crates handled in exactly the same way.

## "Inventing" Better Grains for Minnesota

The Minnesota experiment station, which maintains one of the largest cereal breeding nurseries in the world, is trying to develop or "invent" a hardy winter wheat that will withstand Minnesota's frigid winters better than any such wheat now known and at the same time give a large yield. It is also seeking to find stiff-strawed strains of the spring grains that will not lodge on rich land. Increased yields are other objects in view among the plant breeders in charge of Minnesota's cereal breeding nurseries.

Stocks of spring and winter grains have been secured from all quarters of the globe for trial in the nurseries at University Farm, says Andrew Boss, vice-director of the station. These are carefully tested for hardiness, adaptability and desirability. Two methods are used in seeking to improve such grains; one is by selecting the best individual

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plants, and, through selection, bringing these to a pure line so that they will reproduce true to type and uniform in quality. The other is by crossing or hybridization by which the breeders seek to combine the desirable characters of two parent plants. This is what is meant by plant invention.

While none of the improved hybrid strains are yet ready for distribution, some have been found that promise to be valuable economic grains. Pure line selections, however, have given good yielding strains, and these are listed with the Minnesota Crop Improvement association for sale to farmers of Minnesota.

## The Bacterial Content of Sausages

SOMETIMES sausages contain more than chopped meats and spices. If the meat used is not sound and clean, and if the sausage is not prepared in a cleanly way by careful workmen, a perfectly good looking sausage may be the home of many bacteria.

The bacteriologists have been studying the bacterial content of sausages, and their results are interesting both because of the kind of bacteria that are sometimes found in them, and the fact that ordinary cooking destroys the bacteria. It has been found, for instance, that an uncooked sausage containing 132,000,000 bacteria to the gram, contains no living bacteria after it has been thoroughly fried. While we are justified in demanding that our sausages be made from sound meats and under such conditions that they are not contaminated with bacteria, yet it is reassuring to know that a link sausage fried until crisp is a safe food.

Some people fear the character of the skin used as casings. A careful study of the bacterial condition of casings has not shown them to be unfit for food, nor does their use in any way render the sausage meat with which they are stuffed more subject to bacterial invasion.

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The first requisite in the care of food is absolute cleanliness in the storage place. This is not to be attained by the use of soap and water alone. Fresh air, sunshine, and whitewash or paint are important aids.

---

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You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

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## Wood Alcohol Is No Longer Sold as Food

WOOD alcohol is a deadly poison. It blinds the user if it does not kill him and yet it was once commonly used as a solvent in flavoring extracts and it was mixed with hair tonics as food for the scalp. The pure food laws promptly eliminated wood alcohol from the formula of the extract manufacturer and its use is now confined most properly to the manufacture of varnishes and similar products.

The chemist of the State Board of Health of New Hampshire recently reported the analyses of 77 toilet preparations which he studied with special reference to the use of wood alcohol. These preparations, most of them of the cheaper sort, included toilet waters, perfumes, bayrums, hair tonics, shampoos and facial preparations. The report of the chemist is most reassuring. He found no wood alcohol in any of the samples. He did find that the hair restorers contained nothing which would restore hair; that the freckle creams removed the skin as well as the freckles; that the toilet articles beautified and preserved the complexion by covering the skin nature provided with a colored coating of powdered minerals.

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### STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of American Food Journal, published monthly at Chicago, Illinois, for April, 1919.

State of Illinois, } ss.
County of Cook }

Before me, a Notary in and for the State and county aforesaid personally appeared C. A. Patterson, who, having been duly sworn according to law, deposes and says that he is the owner of the American Food Journal and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—C. A. Patterson, 410 Cunard Bldg., Chicago.
Editor—Dr. H. E. Barnard, 52 Court House, Indianapolis.
Managing Editor—Wm. G. Davies, 410 Cunard Bldg., Chicago.

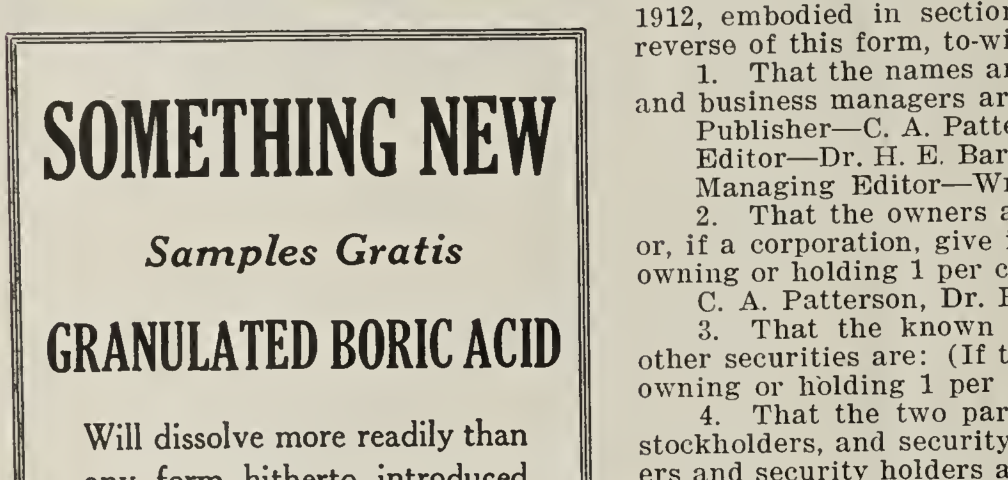
2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

C. A. Patterson, Dr. H. E. Barnard.

3. That the known bondholders, mortgagees, and other security holders other securities are: (If there are none, so state.) None. owning or holding 1 per cent or more of total amount of bonds, mortgages, or

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. C. A. PATTERSON.

Sworn to and subscribed before me this 10th day of April, 1919.
(Seal) HARRIET FRIEDL.
My commission expires October, 1922.)



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## Chinese Organize

THAT China has wonderful possibilities as an agricultural and food producing country is a well known fact and if the plans of a strong organization of Chinese business men in this country are carried out the business men of the United States will soon be actively cooperating with the Chinese in developing these resources and thus another country will be throwing vast quantities of food into the world market to help reduce the world shortage of food.

Early in February there was organized in Chicago the first Chinese Chamber of Commerce. The membership of this organization is made up entirely of successful Chinese merchants and business men and its avowed purpose is to bring about a close cooperation between the business men of this country and the business men of China to the advantage of both.

Moy Wah June has been elected president of this organization. On February twentieth he gave a banquet to members of the Chicago Association of Commerce and at this banquet outlined the plans of the new organization and asked for the support of the Chicago business men for the new enterprise.

In his speech Moy Wah June told of the undeveloped possibilities of China and cited examples to show what could be done by American capital to develop the enterprise of his country and advance the business interests of the United States business men. He said that in China there was a strong feeling in favor of Americans and that the Americans were the logical people to take hold of the Chinese situation.

Myron T. Merrick, president of the Chicago Association of Commerce, said that he could speak for the business men of Chicago and that he knew that they were heartily in favor of supporting the proposition as outlined by the president of the Chinese Chamber of Commerce. Mr. Lawrence of the First National Bank of Chicago seconded Mr. Merrick's remarks and pledged the bankers to the support of the enterprise.

A series of most remarkable Chinese dishes were served at the banquet and the president announced that most of them were cooked with peanut oil, a product which China has long made and used, while in this country this product is only just beginning to be known.

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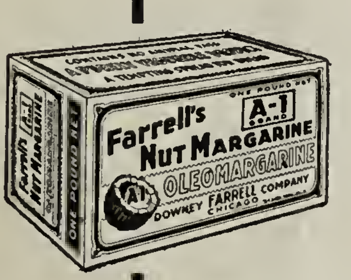

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Have a texture so as to spread like butter.

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**Refuse and Water**

| | Refuse | Water |
|---|---|---|
| Quaker Oats | None | 7% |
| Beef | 20% | 54% |
| Mackerel | 45% | 40% |
| Potatoes | 20% | 62% |
| Squash | 50% | 44% |
| Beets | 20% | 70% |
| Canned Peas | None | 85% |
| Canned Tomatoes | None | 94% |

Note that the waste in Quaker Oats is not one-tenth the waste in any of these other foods.

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Another waste lies in buying food without reference to energy value. That is, to calories.

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| Quaker Oats . . . | 5c | Veal Cutlets . . . | 57c |
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It means that each 30-cent package used to displace meat saves about $3.

And it means vastly more in its better nutrition.

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*Just Queen Oats Flaked*

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*Except in the Far West and South*

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(3052)

THE AMERICAN FOOD JOURNAL

C. A. Patterson, Publisher

H. E. Barnard, Ph.D.
Editor

Wm. G. Davies
News Editor

Cunard Bldg., Chicago

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## Write Us

SOMETIMES I wonder if you who buy and read the American Food Journal, or any other magazine for that matter, realize how hard the publisher and the editors are trying to find out what you want and give it to you.

You know there are a lot of you and each of you has your special problem but even so, your problems could all be gathered together in one of three or four groups and any information that you would receive about any of the problems of your group would be helping you to solve your own particular problem.

Now we can get your point of view and your problem a good deal better if you will write us once in a while and tell us what you think about some of the matter that we are publishing each month. Every now and then we come right up to the point where we have to confess ourselves that we do not know whether or not some particular feature of our magazine is attracting favorable or unfavorable attention or whether it is attracting any attention at all.

Such a problem confronts us right now concerning the price lists of food in various parts of the country that we have been publishing. This list was started as a war measure. Since the war has ended we have had practically no comments, either favorable or unfavorable on the value of this list.

You will note that it has been omitted from the magazine this month, and purposely, because we want to know whether or not any of you will miss it. If you do we will be glad to resume its publication. But it is a difficult list to secure and now that the war is over we feel that we do not want to continue its publication unless we are assured that you want it.

We are going to tell you in our June number about some community kitchen and marketing ideas that are being tried out. You know there are a lot of people who think that the time is coming when much of the detail work of cooking food will be taken care of by professionals who serve a large group.

In next month's Margarine article we will show how a big industry which has grown up in the South and which the South needs is being injured and, to some extent, held back by the anti-oleomargarine laws being advocated in certain quarters.

Miss Wright's articles on canned foods will continue and the newest developments in the entire field of food will be published so as to keep you informed.

C. A. PATTERSON, Publisher.

"The Boy That Night
Ate the Last Puffed Grain"

At a house where I visited the hostess said to the writer, "We love Puffed Grains in our home, but somehow we don't use a large amount."

"Let us see why," I suggested.

Next morning she served Puffed Rice for breakfast, and the last grain was consumed. At noon she served Puffed Wheat in milk, and not a kernel left the table.

In the afternoon the daughter used two cups of Puffed Rice in candy. And the boy that night at bedtime ate the last Puffed Grain in the house.

That's All the Trouble

You will find that children eat all the Puffed Grains they get. The only limit when you serve them is the bottom of the dish.

These are airy, toasted bubbles, thin and flaky, puffed to eight times normal size. In form and flavor Puffed Grains are exquisite.

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Don't you think it a vast mistake when such foods are served sparingly, and lesser foods take their place?

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# Flavoring Extracts and The New Dry Laws

## Agitation of a Senseless Nature Causes Trouble to One of Our Biggest Food Industries

THE old, old political play of "Rule or Ruin" seems to be taking the stage again in several of the states of the Union, notably just now in Texas. The ambitious villain is represented by certain forces that are so strongly opposed to the prohibition sentiment that has swept across the country that they are anxious to ruin other business so as to make the whole proposition seem ridiculous and thereby produce a revulsion of feeling that will, they hope, bring back the halcyon days of liquor traffic. The victim in this case is one of the country's largest and most respected industries, the flavoring extract industry. The plot unfolds itself something like this:

The villain, seeing that his business of selling liquor is about to be closed up by popular sentiment and national edict, casts about for some means by which he can change the sentiment and his eyes spot the bottle of flavoring extract containing alcohol.

"Ha, ha," he cries, "this shall be my weapon. This flavoring extract is the essential ingredient of all soft drinks, and soft drinks, if the cursed prohibition law goes into effect, will take the place of my wines and my liquors. This flavoring extract is also the very basis of the culinary art. With it I can strike a blow at the heart of the food industry. By the god Bacchus, I will either condemn prohibition by making it prohibit flavoring extracts or I will deprive the soft drinks of their delicious flavor and make man's food tasteless and flat."

Then he scans the state laws to find a suitable locality for his stage and he finds that several states have passed or are about to pass laws defining intoxicating liquor in some such terms as this: "* * *all liquids, whether proprietary, patented or not, which contain any alcohol *and which are capable of being used as a beverage.*"

"The last ten words give me my cue," says he, and he proceeds to gather together his caste, all tried and true followers, and he routes his play through the states that have laws similar to the one described.

### An Anti-Prohibition Trick

The following is from the Christian Herald, April 12th issue—a paper strongly in favor of prohibition:

The billion-dollar anti-prohibition propaganda fund of the liquor interests is actively at work, and one of its first subtle indications is seen in the agitation against tobacco and the use of alcohol in flavoring extracts and in the arts and sciences. The cunning of the serpent is seen in the causing of this agitation to appear to come from ultra-prohibition sources. Some extreme statements of certain temperance workers and organizations are quoted to make it seem that prohibition is to be frantically carried to such a degree of intolerance as to ruin many lines of legitimate business. Much capital is being made of the fact that Georgia and Texas already have laws which, if strictly interpreted, will mean the exclusion of any article, medicinal or otherwise, containing more than one-half of one per cent alcohol.

The designed effect of such agitation is, of course, to divide prohibitionists against themselves on questions of doubtful importance, just at this critical time when a tremendous effort is being made by the combined liquor interests to defeat the enforcement of prohibition itself.

* * *

The stage is set, the theatre is crowded with invited guests made up of the grocerymen, the druggists, the wholesalers and dealers who handle flavoring extracts. The curtain rises, showing the scene, which represents a typical village street with its grocery store and houses, and in the center a church. The doors of the church open and the villain, garbed now in severe black, which is supposed to make him look like the extreme, dyed-in-the-wool churchman and guardian of the public morals, emerges and in a sonorous voice sings:

"Oh happy day! Oh happy day!
The demon Rum has passed away.
The curse of drink has left our town,
The Devil's sword is beaten down.
And as from rum we are set free
This world a paradise will be."

He is about to start the second verse when he hears footsteps approaching and the village drunkard, now sober, shambles by. He doesn't see the clergyman, so intently are his eyes fixed on the grocery store towards which he is going. The drunkard enters the store and a minute later comes out holding in his trembling hand a bottle of lemon flavoring extract. He slinks to the center of the stage and, waving the bottle in the air, hisses:

"They'd take from me my comfort—booze,
And make me spend my dough for shoes,
Condemn me to eternal blues.

But in this extract there's a kick;
I'll drink it down almighty quick,
And show them that they're not so slick."

He drinks the fluid at one gulp and, to show how quickly it takes effect, he staggers from the stage singing in a maudlin voice:

"Oh I'm a jolly good (hic) fellow,
I drink extract that is (hic) yellow.
I'm off on a spree,
And between you and me,
The prohibs can all go to (hic) hell-O."

He staggers into the wings, where it takes three doctors an hour to relieve him of the convulsions which invariably follow the flavoring extract drinking. (But the audience doesn't know this, nor do they know that a different man has to be secured for the part of the drunkard every time the act is put on, as one man can't be induced to drink extract more than once.)

The villainous clergyman is horror-stricken. He calls loudly for the town marshal, who rushes onto the stage and, directed by the phony clergyman, goes into the grocery store and drags forth the poor groceryman. The store-keeper protests his innocence and says that he sold the extract on the man's statement that the wife wanted it to flavor the cake with. But the clergyman and many deacons who have crowded onto the stage insist upon the arrest of the store-keeper, who is dragged off to the village hoosegow and the curtain goes down amid great excitement.

The next scene shows the Public Square in front of the town hall. The clergyman is mounted on the band-stand and is haranguing the entire town population gathered about him on the criminal laxness of the law enforcers who permit the sale of flavoring extract when the law specifically says that any liquid that can be drank and that contains alcohol is forbidden to be sold under the prohibition law.

He is interrupted by four women, who detach themselves from the crowd and, standing before the footlights, sing in a doleful voice:

"Alas, our cake and puddings too
Are ruined if they put this through.
We'll have to make our doughnuts so
The hole will taste just like the dough;
Our coffee cakes will taste as flat
As sections of our old door-mat."

But the clergyman interrupts their song, chanting in a severe voice:

"Oh, woman, woman; 'tis said true
That Adam fell because of you;
And now when prohibition good
Would save our souls you talk of food."

But he gets no farther. Cries of "Yes, Yes," and "No, No," are heard on all sides, and some of the crowd gather around the women, while others go to the side of the clergyman. A riot seems imminent, when through the door at the rear center of the stage comes an imposing figure, dressed to represent the town's principal business man. He raises his hand and the crowd becomes silent. Advancing to the front of the stage, he warbles in a deep voice, while the spotlight plays full upon him:

"Our friend, the groceryman, has gone
To serve six months, he did no wrong.
Our wives all suffer dire distress;
We've made their cooking but a mess;
Our soft drinks, too, oh mournful fact!
Will tasteless be without extract.
If booze must go, 'tis also true
We've got to cut out eating too.
So write your Congressman today—
There really is no other way—
And tell him prohibish must go,
'Cause that's the way to end our woe."

Quick curtain. The audience goes home, the grocerymen and other merchants to dream of being arrested for selling flavoring extract, and the housewife to suffer from the nightmare of having to cook without the use of flavoring extracts.

* * *

And so the farce goes on in every state where prohibition laws are passed without being so worded that the flavoring extracts are actually and specifically excluded from the list of alcoholic drinks. Of course there is no actual play staged as recorded above, but in each of the states, especially when a vote on some phase of prohibition is pending, there are many who pose as extreme prohibitionist and who insist upon most absurd interpretations of the laws.

The "Drys" seem perfectly able to take care of their end of this situation, and it is not from the standpoint of either "Wet" or "Dry" that this is written. But whenever such agitation comes up a legitimate and highly respected food industry, that has never been identified as an industry with either the "Wets" or Drys", suffers.

Right now the flavoring extract manufacturers are receiving letters from merchants and dealers in Texas saying that they cannot buy flavoring extracts with alcohol in them until they know where they are at. Which, being interpreted, means that they fear to sell extracts until there has been a court decision which shall grant them immunity from persecutions from either the liquor sympathizers, the extremists among the prohibitionists or others who, being misguided or deliberately unfriendly, seek to make trouble for them.

That this agitation against flavoring extracts does not originate with the prohibition people is apparent from the fact that in the states where the Anti-Saloon League and other prohibition forces have been dominant there has never been an arrest of a groceryman, druggist or dealer for selling flavoring extract.

Captain Frank B. Ebbert, attorney for the Illinois Anti-Saloon League, when asked recently what was the attitude of his organization towards the flavoring extract industry, said:

"We have never bothered this industry or the people selling or using flavoring extracts. We recognize the fact that flavoring extracts as they are made by legitimate companies are not and could not be made use of as a beverage. They are nauseating. We have never heard of anyone becoming addicted to the habit of drinking flavoring extracts, although we know of isolated cases of hardened sinners trying them. In the states where prohibition is in force there has never been a single court decision to support the claims of some agitators that the flavoring extract business is in jeopardy under out definition of intoxicating liquor.

"The reason we do not specifically exempt flavoring extracts in our definitions of intoxicating liquors is, if we did so we would be opening the door to a certain class of people who would manufacture a concoction which could and would to some extent be used as a flavoring extract, but whose principal reason for existence would be that it could be drunk frequently as a beverage and would produce intoxication. The burden of proof as to whether this concoction was a flavoring extract or liquor would be on us, and it would be a difficult angle for us to handle."

Dr. Atticus Webb, superintendent of the Anti-Saloon League of Texas, recently gave out the following statement regarding the definition of intoxicating liquor embodied in the Texas prohibition law that will be voted on this month:

"Merchants are unduly alarmed. The laws referred to have been on the books in various localities of the state for 25 years."

It is further pointed out that in Texas under the old laws there were no prosecutions of grocerymen or druggists for selling flavoring extracts.

That there is no actual danger to the retailers of any state under the usual definition of intoxicating liquors is very apparent. That there

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# Some Inconsistencies In the Anti-Margarine Fight

## Leaders of the Dairy Law Making Forces Fail to Act in Accordance With Their Statements of Purpose

*By William G. Davies*

THERE are few errors committed by intelligent people that are more inexcusable than the error of inconsistency.

In the ignorant inconsistency simply indicates the lack of ability to think clearly and truly weigh results, but in the intelligent person it is ever an evidence of an unrestrained selfish prejudice that overrides good judgment or it indicates an actual leaning towards knavery. It is a form of dishonesty that is an insult because the person or group of persons who practice it always assume that it will either go unnoticed because of ignorance or it will go unchallenged because of the selfishness or dishonesty of those for whom the inconsistent one is supposed to be acting. Its practice breeds contempt for the dishonest utterances or acts and it brings suspicion upon the honest acts of those who are guilty of it.

When any great industry upon which the human race depends for many of the necessities of life is championed by men who will permit themselves to be guilty of inconsistencies, who one day will place their appeal for support and patronage on the good of the human race and on the next day, ignoring the good of humanity will cater to the selfishness of their own particular class, it is a safe statement that industry needs new leaders more than it needs anything else.

This applies particularly to the dairy industry which was recognized as an essential industry when other businesses were still in their trying-out period: the dairy industry which produces the one whole food product—milk—declared by science to be a necessary food; which has the co-operation of practically all of the educational forces of the country in creating and enlarging the demand for the product. In the face of all of these advantages such as no other food industry in the world has ever possessed, the business of producing milk and milk products is lagging in both quality and quantity as compared with other food businesses and the blame for this backwardness must be laid on the shoulders of those who in taking the leadership elected to ignore the faults and evils in their own product and among their own people and centered their efforts on trying to destroy competitive businesses by having passed in each state laws that would hamper and obstruct the opposition.

### Many Inconsistencies

I will defy anyone who is free from connections of any kind with the dairy or margarine interests to read the hundreds articles published in the many dairy publications as I have done during the last few months and not be impressed with the many glaring inconsistencies in the acts and words of those who are responsible for the fortunes of this industry, as reported in these publications.

One reads in their own publications of the strong humanitarian plea which the dairy interests put out in favor of the consumption of butter instead of margarines on the ground that science has proved that butter contains the vitamines so necessary to the intellectual and physical welfare of the race and which, they say, are absent or present in insufficient quantities in margarines and on the strength of this plea all sorts of laws are proposed and many of them passed in the various states which obstruct the sale of the competitive product. From other issues of the same publications one learns that certain laws which would compel pasteurization of milk to destroy the disease germs are looked upon as "burdensome to some of the smaller dairymen" and these laws are opposed or fail to receive the dairy interests' support, and this in the face of the fact that hundreds of health department reports have traced the origin of typhoid and other epidemics to contaminated milk.

In the dairy publications we read long articles condemning the feeding of margarines in certain state institutions and a demand for laws that will compel the feeding of butter because, as the dairy interests put it, "the inmates of these homes for the aged or homes for the mentally defective, are entitled to the best that we can give them:" and then we learn from the same sources or from government records that only indifferent success is being met with in the efforts of the health authorities to compel a tuberculine test for all cattle so that the public may be assured of milk or dairy products that are free from the germs that have produced the greatest scourge of the white race. The fact that much of the milk and other dairy products, if not subjected to the strictest methods of germ prevention or germ killing are loaded with pathogenic germs which destroy life was known to the leaders in the dairy industry long before the vitamine theory was established but most of the effort to protect the public from these disease breeding germs has been made by other than the dairy leaders. And in many instances, such efforts failed to receive the active support of the dairy leaders.

I am not going back into ancient history to get this as as recently as March, 1919, the officials of the National Creamery Buttermakers' Association at a convention held at Cedar Rapids, Iowa, attempted to have the convention go on record as favoring a butter standard which, to quote from the columns of The Dairy Record of St. Paul, "would have placed the association on record in favor of everything that the centralizers wanted by way of standards and definitions."

### Convention Notes

To give you the full significance of this statement I quote more from this dairy publication which reported the convention in full. And bear in mind the fact that James Sorenson who led the fight against the adoption of the resolution is not an official of the dairy organization, but a public official, the food and dairy commissioner of Minnesota. After telling how President Farrell of the association had appointed a resolution committee and how this committee had reported unanimously in favor of a certain definition of butter referred to in the preceding paragraph, the Dairy Record states:

> "It was at this point that Commissioner Sorenson of Minnesota got the floor and in a vigorous speech urged the Convention to stand for high quality and a fair deal to the dairy industry and the consuming public. He warned the meeting that if butter made from all sorts of cream had to be doped with lime, soda ash and other chemicals before it could be used was to be sold as butter, there would be no inducement whatever for any farmer to take care of his cream and the manufacturers of imitation products would get the best of the dairy industry."

The article goes on to state that while not a voice was raised in favor of "neutralizers" the votes on the different motions showed that some of those present were anxious to kill the movement led by Mr. Sorenson (for pure butter). In the final vote Sorenson won but no credit can be given to the officers of the organization for the result.

Another part of the report of this convention illustrates the point that I make that the officials of the dairy organizations have failed miserably to educate their own people to the necessity of high quality while they have been hammering into them the necessity for laws to obstruct competitors. I quote again from the Dairy Record:

> "The speaker (Dr. Larson) was sorry to say that most of the butter that had been exported from the United States in recent years was not the kind that builds up trade. What he had seen in European countries of American butter would score about 80 and it is impossible to expect any export trade until our goods are standardized and a high quality is maintained as is now being done by Holland, Denmark, Sweden, Australia and New Zealand."

To make my point more clear compare the work of the officials of the dairy organizations with what has been done by the head of many other food organizations.

The citrus fruit growers, the apple growers and a number of other fruit producers about ten years ago woke up to the fact that their business was suffering because of the poor quality of goods that some of their fellow producers were marketing and that if the demand equal to the production possibilities was to be created something had to be done. Their first action was to organize and force upon their own members a standard of quality production. Then they advertised extensively, making quality the watchword. They established systems of inspection and penalized their own members for violations. In ten years they have educated their own members to the value of quality and have built up an enormous business. The National Dairy Union has been organized thirty years and according to the statements of many of their own members they still have in their organizations men and insituations, notably the "centralizers" that are seeking to force upon the public butter that is made from rotten and odoriferous cream that has to be treated with chemicals before it can be made salable.

### Obstruct Sale

These same leaders have concentrated their efforts on securing the passage of laws to obstruct the sale of margarines which are admittedly wholesome and sanitarily manufactured products while they have condoned and permitted the manufacture and sale of poor butter within their own ranks.

The sale of poor and often disease bearing butter has done more to discourage the public from buying their product and to encourage them to use margarines than all the selling arguments of the margarine makers. Right along this line a very illuminating letter was published by Hoard's Dairyman in the issue of March 7, 1919. I quote from it:

> "* * * There is too widespread complacency on the part of the dairy interests with the quality of average dairy products, and too little acknowledgement of the fact that much butter reaches the consumer in a condition very far from good.
>
> "* * * I think that no one is more interested or believes more in dairying. But I have had quite wide experience with opportunity for travel and observation and I must confess that 'good butter' is difficult to obtain by the average home through the usual sources of supply, the grocery store.
>
> "During twelve years prior to 1916 I have lived in five good sized middle west cities. I have tried faithfully to get 'good butter' and have failed for so much of the time that it is fair to say that no source of supply for the retailers in these cities can be depended on. I admit that much butter is sold and consumed in all these places, also that many are not so critical as I am, but I cannot help concluding that a large majority of the butter consumers stick to it, not because they relish it, but because they believe it is healthy.
>
> "* * * I live in a community famous for its dairy herds, yet inquiry at a prominent local store yesterday brought the information that double the quantity of substitutes is sold over the counter here as compared with butter."

The letter is signed C. L. B., Williams Bay, Wis.

These and many other quotations that I could give if space permitted show clearly that the attitude of the leaders of the dairy interests has not proven them to be working either for the good of the dairy business or the good of the public. Their whole value to the dairy industry seems to be in their ability to swing the political club of the dairy vote over the heads of the legislators in the various states and compel the passage of laws to limit competition. As educators of their people to the sane modern methods of building up a business their record condemns them as failures. They have frequently stated that their only opposition to margarine lies in its "deceptive sale to the public for butter." They have admitted its wholesomeness and its cleanliness but, they say, they are only concerned with protecting the people from fraud.

### Pass Laws

One of the lines of their greatest activity has been to pass laws in the various states placing a tax upon retailers who would sell margarine. How can they reconcile this activity

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# Western Canners Meet to Plan for Readjustment

## Consider New Inspection Feature and Plan for Business Under Post-War Conditions

THE Western Canners Association met in convention in Chicago April 24 and 25. The meeting was, in effect, a continuation of the thought and action taken by the National Canners Association in January of this year, as the problems brought up by the post-war readjustment period were the principal points of discussion.

The development of foreign trade in canned foods, the establishment of a strict system of inspection, the formulation of plans for a broad campaign of publicity and education on canned foods were the principal topics of discussion and the action of this association seemed to be in hearty accord with the plans laid down by the National Canners in January.

The retiring president, Walter J. Sears, gave a masterly address in which he reviewed the events leading up to the present condition of trade in canned goods particularly. In summing up the causes for the violent reaction and recession in values of canned foods since the signing of the armistice he said:

"This condition presents a paradox, an explanation for which seems as difficult a problem as any which has been presented to our industry. I only hope to present some of the possible causes:

(1) Misconception which went abroad at the close of the pack that the production of all staple canned foods had been greatly in excess of any previous year's output. It takes longer to catch up with a lie than to spread it abroad, and while corrections have been made indicating that the pack of these staples was not greatly in excess of the average of the last few years, this misconception permeated not only the trade but also the minds of the consumers.

(2) Quite in conflict with this condition was another misconception, to-wit: That the Army and Navy had taken most of all the canned staples produced, and that therefore the consumer must depend upon his own supplies produced at home, and these supplies were produced at home in large quantities, very much to the injury of the commercial product.

(3) The widespread belief among consumers that certain foods after the armistice would get cheaper. Therefore they stopped buying some of these foods to wait for cheaper prices. It was natural for the public to expect canned foods to be cheaper, because prior to the war they had been dirt cheap, and during the war they had risen to unusual values.

(4) The refusal of the retail grocer to cooperate with the jobber and canner in sharing his just part of the loss involved in readjustment, not necessarily a direct loss, but a scaling down of his former wartime profits.

(5) The attitude of the wholesale grocer in declining to make contracts for the delivery of the 1919 pack, since he had not escaped the common misconception that canned foods would be cheaper, or else he had entered upon a new policy of distribution which involved his no longer carrying the finished product during the period of distribution, but that this burden should rest upon the canners.

Permit me to now present what I consider some of the real and permanent facts underlying the present status of canned foods:

(1) Canned foods cannot be and will not be permanently cheaper this year or next, because:

(a) The cost of manufacture in 1919 will be as high as in 1917 and 1918.

(b) The pack of the staple vegetables will be less in 1919 than in 1917 and 1918, due to the shortage of acreage.

(2) The cost of manufacture will be substantially as high in 1919 as in 1918, because:

(a) There can be no radical recession of labor scales.

(b) The cost of essential materials is as high on the average as in 1918.

(c) The price of farm products, while less in some sections, on most staple products will be on the whole as high as in 1918. This is due to the fixed government price on the wheat crop of 1919, and the high level of prices still continuing on other food products, such as field corn and hogs and cattle.

(3) The general food shortage in the world will be as marked in 1919 and 1920 as in recent years, because the areas devoted to the raising of food in Europe cannot be restored to their normal production within this period.

(4) The restriction on shipping abroad on certain food products, caused by the shortage of ships, will be relieved by the middle of the summer, and many foods, including canned foods, will find a ready market in Europe and other countries.

(5) The declaration of peace, the lifting of embargoes, the opening of the channels of trade, the ample supply of ships will mark the beginning of a restoration of prosperity which will equal in volume and variety anything we have ever known in the industry of the country. When this time shall come, and it will come, unless the world is to pass into decadence, we shall have another paradox, to-wit: Canned foods then will be as high in value, if not higher, than other foods.

(6) This nation as well as others, as pointed out so ably by Prof. Irving Fisher of Yale University, has come upon a new higher level of prices, caused by our increased gold supply and enlarging money credits, based upon government bonds, and other forms of credit, offered by our Reserve Bank system. Our gold supply is some three times larger than it was before the war, and our forms of currency and credit are nearly seven times greater. It will be many years before our excess gold is reduced and distributed to other nations, or our new forms of credit are liquidated. As long as these supplies remain large and generous the

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level of prices will continue high. Prof. Fisher's argument is so true, logical and historically sound that it ought to be placed in the hands of every thinking citizen of the country."

The remedies the speaker suggested are to be found in a campaign of education of the consumer, the retailer, wholesaler and jobber. He spoke strongly in favor of the inspection plan and a campaign of publicity.

Frank Gerber, president of the National Canners' Association in an address emphasized the points brought out by Mr. Sears and said that it was his thought that the readjustment, from the canners' standpoint, can most properly be started by the readjustment of his mental attitude, making up his mind to render the best possible service first and placing remuneration in a secondary position.

Frank E. Gorrell, secretary of the National Canners' Association, explained the workings of the inspection program.

One of the notable speeches of the convention was that given by C. W. Patterson, manager of the canned food department of Wilson & Co., Chicago. In explaining the reason for and the meaning of the packers being in the canned food business he said:

"I want to say to you members of the Western Canners' Association that you are more vitally interested in the distribution of canned goods than either the wholesale grocer or the meat packer.

"The meat packers of Chicago are not now wholesale grocers and as far as Wilson & Co. are concerned, do not contemplate becoming wholesale grocers. Each of you know, that scattered throughout the different cities of this nation are branch houses owned and equipped and operated by packers. These houses were built primarily to distribute nothing except fresh meats and provisions.

"At each house there is a branch manager, a cashier, a credit man, a sales force and a delivery force. For years these branch establishments have been operated without profit and some means to absorb these losses through increased volume necessarily had to be found; therefore, the packers first turned to the produce lines—butter, cheese, eggs, poultry—which could be handled to advantage on account of these houses being equipped with refrigerated facilities. Even with these added lines, it was found that the volume yet would not absorb their losses, so canned foods, preserves and condiments, etc., were added, thereby absorbing all of the working time of each individual manager and each organization, lowering the cost to operate and largely absorbing the losses that had been going on through these houses. This economic condition was forced in the same manner that the wholesale grocer rightly found it necessary to take on woodenware, grocery sundries, tinware, drug sundries, auto tires, etc.

"The advent of the packers in the canned foods business will not in any manner eliminate the wholesale grocer as a distributor of canned foods."

The following men were unanimously elected to hold office during the coming year:

President, W. A. Miskimen, Hoopeston, Ill.

Vice-President, E. W. Virden, Grinnell, Ia.

Secretary-Treasurer, Charles E. Tulleys, Chillicothe, Ill.

Board of Directors—W. A. Miskimen, Illinois; E. W. Virden, Iowa; Samuel Orr, Ohio; I. C. Morgan, Indiana; H. E. Hagemann, Wisconsin; A. G. Douthitt, Minnesota; E. B. Gill, Michigan; H. L. Herrington, Utah; C. E. Cuykendall, Nebraska; R. Williams, Missouri; J. R. Stokely, Tennessee.

An entirely new development of the convention was the organization of a Women's Auxiliary. This was suggested by John A. Lee of Chicago and received the hearty support of all of the delegates present. The purpose of the auxiliary is to give the wives and daughters an opportunity to share in the coming publicity and educational campaign. The women organized and elected officers. They passed resolutions which outlined their work. They will seek to educate the women of their communities to the value of canned foods, take up welfare work in the factories, etc. The president is the wife of the man elected president of the Western Canners' Association, Mrs. Miskimen of Hoopeston, Ill.

## Some Kinds of Economy That Are Expensive

INSTITUTION kitchens are run carefully and economically, but not always scientifically. Too frequently the main object of the steward is to keep down costs, and he counts every cent cut from the board bill a penny saved. Butter costs money. It is not the cheapest form of fat and so it is not used in many large institutions. Butterine or oleomargarine is used instead and at a considerable saving.

Is it true economy to save by substituting butterine for butter? Perhaps substitution is not the correct word, for butterine is a wholesome and palatable product and it ought to be used even more generally than it is now. But it should be used with intelligence. It is not the complete food that butter is. Young animals, (and growing children are young animals), cannot grow on vegetable fats. They need the fats which nature provides to feed the young. They need butter fat; they need the fat in the yolk of the egg. Butterine, free from butter fat, will not make them grow and whenever it is used it should be supplemented by quantities of fresh milk, not skimmed milk, but milk rich in cream.

The better grades of oleomargarine contain considerable quantities of butter, sometimes twenty-five per cent. That is the kind of oleomargarine that ought to be used. The mixture of oleomargarine and butter is decidedly cheaper than butter and it furnishes the growing body the necessary fat. Of course, eggs will do the same thing but eggs cost even more than butter.

Economy in food is a dangerous thing unless it is coupled with intelligence. In institutions where large numbers of growing children are fed, the greatest care must be taken not only to give the children enough food at a reasonable cost, but they must be kept growing and that means that they must have rich milk and butterfat.

## Shark Meat Found "Not Guilty"

Shark meat is delicate in flavor and texture, and sharks are plentiful in certain parts of Florida, but the fishermen do not catch them because they are not salable. The home demonstration agent of Monroe County, Fla., decided last winter on an effort to establish in favor this fish now under the ban. At her request a fisherman caught one, but warned her that no one would eat it. Undismayed, she invited a large company of women to a home economics luncheon at which was served a fish salad. When all had tasted the salad she asked for a vote as to how many liked it and wanted the recipe. Without exception the women voted their hearty approval, and thus proved to themselves that their prejudice was without foundation.

# State Health Official Tells of Municipal Food Control

## Gives Many Instances of Results of Efforts and Suggest New Laws and Regulations That are Needed

*Address delivered by Charles V. Craster, M. D., at the Convention of the Central Atlantic States Dairy, Food and Drug Officials.*

PLINY, the Elder, in his natural history which he wrote two thousand years ago, bemoaned the hazards of human life in the following words: "Our first attention is justly due to man for whose sake all other things appear to have been produced by nature, though on the other hand with so great and so severe penalties for the enjoyment of her boundless gifts that it is far from easy to determine whether she has proved to him a kind parent or a merciless stepmother."

In no part of man's contact with nature has he developed along more definite lines than in the supervision and in the knowledge of the purity and wholesomeness of his food. This knowledge goes back to remote ages so that it is not by any means a modern activity associated with his self-preservation.

In Eber's manuscripts of ancient Egyptian papyrus there are many and varied instructions regarding the safekeeping of foods and similarly in the writings of Confucius, and in the commands of the Mosaic Law there are numerous regulations concerning what the citizen should or should not eat.

### An Old Rule

It was a safe requirement that food should not be eaten which was in any way objectionable from the point of view of taste, smell or sight, so that a great many of the older rules and writings for purity of food are based along these lines and it is probably a safe generalization to place such reliance upon the organs of sense to determine the purity of food or otherwise.

If we look over the older laws upon public health as passed by our various states and municipalities it is seen how efforts were made to prevent the selling of meat which came from diseased animals, and how other perishable foods were required to conform in appearance, taste and odor with the recognized standards for fresh foods.

The control of meats is now universal, and the same may be said of milk, although the efficiency of the control of the latter article is at times difficult to establish.

There is no greater development in public health education amongst the scientists and the public themselves than in the recognition of the part played by science in the control of unfit food stuffs. Science, particularly through bacteriology and pathology, has been applied most advantageously to this control and the methods formerly in vogue of observation alone are being succeeded by very much more delicate tests where there is occasion for doubt or suspicion.

### European Way

In most of the cities of Europe inspection of fresh meats has been carried to very unusual detail. I well remember that when taking a public health course in London some years ago we were taken into the various slaughter houses in the metropolitan area and shown the very precise and accurate methods used in preventing diseased meat from reaching the consumer. These authorities are well aware of the type of fraud which is sometimes practiced, and for our training in one instance we were taken down a line of dressed sheep carcasses; each of them was beautifully dressed and appeared to be in perfect condition. We students were asked our opinion of these, which we cheerfully gave to the effect that nothing seemed wrong with these carcasses. Then the veterinarian in charge said: "Gentlemen, if you will look very hard at the fifth carcass from the end you will find that it is smaller than the other and that it is not a sheep carcass at all, but that of a collie dog dressed like a sheep should be dressed."

There can be no doubt that municipal control of meat is one of the most important activities of a Department of Health. It should, however, be a complete inspection carried out by licensed veterinarians. Suspicious carcasses upon which a clinical opinion cannot be definitely given should be submitted to a pathological test before they are passed or condemned.

There is a question sometimes raised as to how much of a carcass can be passed for human food in the case of tuberculosis. With regard to municipalities this depends very much upon the personal opinion of the veterinarian in charge of the meat inspection.

There has been some argument in favor of adopting the German Freibank System. This is a municipal recognition of the value of diseased meat which is sold at a separate counter, not as first class meat, but termed meat which requires special cooking to make it harmless. At these stores measly meat or "finniges fleisch" is allowed to be sold. This system, according to some authorities, has merits. It is, however, a question whether it can be handled without danger to the public.

### Meat Control Hard

In most municipalities the control of meat is difficult for the reason that there are so many places where cattle are allowed to be slaughtered. There is considerable reason to suppose that the best control of all meat supplies should be through municipal slaughter house or abbatoir, in which the slaughtering could be done at all times in the presence of municipal supervision.

The type "bob veal" has recently come into its own, although there are certain ethical objections to the use of very young calves. It is evident that a lot of good meat can be saved if these calves are submitted to veterinary inspection. These carcasses should not be condemned simply because they are young calves.

The supervision of milk has been a part of public health work which has been extended very recently and considerably. This supervision has eventuated from the knowledge that much of the impure milk and that of poor physical or chemical quality was responsible for the high death rate amongst children. The work of Koch and others who investigated tuberculosis in cattle has brought about considerable attention and activity along the lines of controlling the spread of the bovine type of tuberculosis.

A number of our states have very efficient laws for the prohibition of the sale of milk tuberculous cattle. In some instances Commissions on Tuberculosis are in existence which control the testing and disposition of tuberculous animals in dairy herds. For the State of New Jersey, I would say that we do not receive the cooperation of the dairymen. The reason for this is due to the state law which makes so slight a provision for compensation, making its operation practically confiscatory, to the owners of cows which are found to be tuberculous and which are slaughtered. It is not always the fault of the farmers that his cows are tuberculous and it is a manifest injustice not to pay a reasonable sum for the slaughtered animal where such is found not suited for human food. There should be some compensation payable to owners of animals which upon slaughter are shown not to be tuberculous. This compensation should be at least a sum equal to the full value of the animal. In England where a cow is slaughtered and found non-tuberculous not only is the full value of the animal paid for, but a sum of $20.00 in addition, accounting for the productive loss sustained by the owner.

### Farmer Co-operation

We cannot expect the co-operation of the farmer and dairymen unless we make it less of a hardship to rid the herds of this disease. A state law should be passed of such scope as to make it an attractive proposition for the dairymen to have healthy herds. When tuberculosis is found in an animal the amount of valuation payable by law should depend upon the extent of the disease present.

Regarding dairy products, butter, of all of them, is least liable to be sophisticated. The control of the purity and wholesomeness of butter depends largely upon the public taste and it is due to the fact that no oleomargarine or butter substitute has been made which can masquerade as pure butter. There is a sophistication, however, that is not at present adequately covered by law and that is the excessive water content very frequently found in butter. We have no law which prohibits sufficiently the excess of this element which in some cases is very considerable. No butter containing more than 16 per cent of water should be allowed to be sold and anything above that percentage should be labeled: "Not genuine butter."

There is something to be said in favor of a butter which can be produced at a cheaper price, but which would not be other than butter. This is in reference to the merging of milk with butter. The law could be so altered to allow the sale of such blended butter with the proviso that the amount of milk incorporated should not be more than 24 per cent. This butter can be so labeled and sold as blended butter.

The percentage of salt in butter could be regulated with advantage. Excess of salt can be used for fraudulent purposes.

### Are Handicapped

Municipalities are handicapped in the control of milk in many ways by the inability of State Departments of Health to assist them in the inspection of dairies from which milk is obtained and very many of our municipalities are required to raise vast sums to insure a clean milk supply. There is some argument in favor of the Federal Government undertaking the inspection of dairies and farms producing milk for interstate sale. Although most of our municipalities can and do control the chemical quality of milk and in some cases the bacterial standard as well, and which is used as a basis for milk grading, this will not take the place of an efficient and accurate inspection of the places where the milk is produced.

Milk is so important from the point of view of the lives of our babies and children and through them of the physique of the future citizen that the care in milk production approaches very closely, and, in fact, has assumed the character of a national question, and I think we, as municipal authorities, are justified in asking the Government to take very definite steps to assist the State Departments of Health which are not at present doing what they should do in the supervision of the dairy farms and milk-producing centers.

In the condemnation of fruits and vegetables there has been quite a modern trend to conserve as much as possible the valuable or useable portion of such foods.

We have had in our experience considerable difficulty in determining how much latitude should be given for this purpose. We have felt where large carloads of fruits and vegetables have been found to be seriously damaged or unwholesome that some period of time can be reasonably allowed the consignee to adjust the conditions found and by salving as much as possible of the good portion. In some instances, however, the consignee has refused to undertake this work and we have been reluctantly compelled to condemn good fruit and vegetables.

It would appear that there might, with advantage, be some law requiring persons who receive such goods and where a part of them has been found unfit for food to carry out the sorting required for salving the edible part of the shipment under the supervision of the local Department of Health.

More recently the problem of food control has presented unusual and new troubles for the reason that large quantities of canned and preserved foodstuffs were present on the market. This type of food tends year by year to increase in quantity and many of our food condemnations are associated with this variety. New and unusual conditions have been found also as the results of cold storage methods and very many instances must have come to the attention of health officials where it has been difficult to determine the wholesomeness or otherwise of goods held for long periods of time in cold storage. This question as to whether such food is fit for human consumption has become of great moment in many municipalities. There is no doubt that all canned goods where there is evidence visible or otherwise that the goods have departed from their normal condition and appearance should be held for some very definite examination as to their wholesomeness.

### Blown Cans

Beveridge has shown that where tins are blown it is the result of the development of the bacillus cadaveris, the spores of this bacillus being very resistant to heat and may develop at any time within 14 days after the canning. On the other hand, development may be delayed for long periods of time, provided that the tins are kept at a low temperature. When the temperature rises to the point of incubation—37 degrees centigrade—these germs develop with the formation of gas and a change in the foodstuffs, which renders them unwholesome, occurs. It is for this reason that very many consignments of canned goods which have passed various tests and have been stored for long periods of time may show signs of swelling and possibly be unfit for food. Large quantities of this type of foodstuff have come to our attention and in all cases a consignment has been allowed to be handpicked with the object of eliminating the swelled cans, which are to be opened and the contents destroyed.

There would seem to be some necessity in exercising supervision of the temperature of sterilization in canned goods production. This temperature should be increased sufficiently—say to 240 degrees Fahrenheit and maintained for an hour—so that all spore organisms could be destroyed.

With regard to the swollen tins of condensed milk this may be at times due to other conditions than putrefaction of the contents. When such goods are kept in cold storage, freezing of the contents will at times swell the can. It may also be due to gas produced by other than bacterial action such as that produced by electrolysis between two different metals or by acids contained in the metal or material before sterilization was carried out.

### Change Not Evident

On the other hand, changes in canned foodstuffs may take place without any visible evidence of the formation of gas. Such materials bring about poisoning from ptomaines and other toxins. There has been also some opinion holding that metallic tin may be dissolved by acids or oils as in the case of canned sardines. Lead also may be taken up from the solder. The employment of solder in large quantities should be deprecated. It is desirable that efforts should be made to have as little solder as possible on cans and have a moulded, jointless connection with the lid of the container.

Any discussion on food control would be inadequate without some mention of the co-operation between the United States Food and Drug Department of the Department of Agriculture and the municipalities.

The food and drug control in large municipalities is so definitely confined with limited areas that many of the prominent problems are essentially local. Also the State Department of Health is the logical authority to which the municipalities are expected to look for assistance in many cases. However, action in food condemnation requires very quick handling and this cannot be done when the matter has to be taken up with the State Department of Health. In New Jersey cities food is shipped from every part of the country and the most direct method of co-operating with the Federal authorities is by the municipality itself. Such a procedure has been in our experience decidedly advantageous for our cities have the direct backing of the U. S. Department of Agriculture. Where decisions have to be made and made quickly upon consignments of foodstuffs, this method has borne good fruits.

A few examples of the co-operation of this nature can be quoted which show how great has been the assistance of the Government Department in helping municipalities in a just adjudication of food condemnations. This Department a little while ago received information from the U. S. Department of Agriculture which resulted in the seizure of 8,642 boxes of brown, white and black beans. These beans were shipped from Brazil into Newark to be sold and were found to contain large numbers of weavils. The beans were allowed to be sorted under the supervision of sanitary and food and drug inspectors and were not released until samples of the beans had been submitted to the United States Department of Agriculture. This cooperation saved the Government department considerable expense. The supervision was efficiently done by the local authorities and the municipality was glad to have the backing of the Government in the decision as to the unwholesomeness of the beans.

Many sophistications have been experienced as the result of the war cutting off former sources of supply. This has been very noticeable in the case of olive oil. Fifty cases of olive oil were seized by the municipality as a result of information received through the aid of the U. S. Government Food and Drug Division. The consignment was interstate and was seized under the laws of this state. The invoking of the State Seizure Law was of the greatest assistance to the Government for the reason that had Government action been taken, it would have required a period of five days before seizure could be made. The case was settled by the U. S. authorities, the dealers being allowed to change the labels on the cans under municipal supervision.

### Misbranding

Other instances at this time showed that in various parts of the City of Newark other brands of olive oil had been sold marked olive oil, which proved to be two-thirds cotton seed oil. These consignments were also seized and the labels were changed under municipal supervision, and the case adjudicated by the U. S. authorities.

In another instance a carload of grapes was seized by this department on information obtained from the Federal authorities and in conjunction with them the grapes were destroyed and deposited in the Newark Meadows.

There was also an interesting cooperation with the Federal authorities in connection with the underweighing and improper marking of boxes of candy. Samples were taken by the Federal authorities. A hearing was held by them when representatives of this department and the offending consigners were present and the cases dismissed with a warning. Upon reinspection these same persons were found violating the law again and it is understood that the Government is taking legal action to abate this situation.

### Government Helps

Quite an interesting instance of co-operation between the Government and municipal authorities came to our attention as a result of a shipment of condensed milk from a Wisconsin firm consigned to the Italian government. On account of the cessation of hostilities this milk was held in Newark and Hoboken and was then transferred to the freight yard of Newark. Samples were taken and analyses made by the U. S. Department which resulted in the information that one-half of the milk was unfit for human consumption. As a consequence of this information from the Government, 531 cases of the condensed milk were condemned out of 1,090. The consigners were allowed the option of opening each swelled can and denaturing its contents, a concession which I may say the consigner did not take advantage of. Similar action was taken upon the evidence of the Government inspectors concerning 18-gallon cans of "tomato puree" in possession of a certain bottling works in this city, which after examination in the U. S. laboratory showed that one-third was found to be unfit for food.

An unusual piece of information was conveyed to us by the Government concerning some 100 cases of condensed milk which had lain for some time on a lighter at the bottom of the East river. When this information reached us it was found that the cases had been distributed into several dealers' hands in this city, and when we got on the spot we found that the majority of the cases had already been sold. We were able, however, to recover a number of cases and from these samples were submitted to the Government authorities for examination. It was found that although the milk could not be condemned as unfit for human food, it could only be sold for manufacturing purposes where the milk would be subjected to a high temperature.

(Continued on page 41)

# Body Building Food Should Be Our Real Concern

*By H. E. Barnard, Ph. D.*

THERE is far too much talk about bad food—and adulterated food and the high cost of food. The really vital question which should be studied at every meal by every one who is old enough to give thought to the most important thing in his daily life is—how much food does he require and is he getting it? Now this is not a question of quantity; a whole cabbage is really less valuable as a food than a lump of sugar—nor is it altogether a question of diet. Man can live without meat—he can live on fruits and nuts—he can exist on raw foods, but what he really needs to do is not to become a faddist—not to chain his very existence down to some self-designed formula—but from the variety of food found on the average table to choose the things he needs and to take of them a sufficient amount and then stop.

Stock feeding has become a science, but the farmer who can successfully feed his cows for butter and his hogs for bacon usually fails dismally in feeding himself. The fireman who stokes the fires under his boiler to get maximum steam pressure is far less successful in stoking the fires in his own body, and as the shoemaker's child goes barefoot so the baker's baby too frequently is pale and poorly nourished.

Poverty and bad feeding are synonomous, but it is a fatal error to say bad feeding is due altogether to poverty. The poor are usually poorly fed and so undernourished and inefficient. But even the little money spent for food for the poor man's family if spent with wisdom would go much farther—yes, twice as far as it now does. If the girl in grammar school were taught the principles of food and nutrition as carefully as she is the number of bones in the body and the geographical boundaries of the states, when she became a housekeeper she would be better prepared than now to make the money available for her family's food worth one hundred cents on the dollar instead of as now too frequently thirty-five. It is too true that everything the poor man buys costs him more than it does his better stationed brother. He pays less rent, of course, but he gets almost nothing but shelter; the conveniences that would make his shelter a home are absent. He buys fuel in small quantity and pays two prices for it; and what he spends for food goes in too large measure for things that are bulky instead of nourishing and when food value is more apparent than real.

On Christmas day I saw a hundred baskets ready for distribution to poor families—they were made up to go to families varying in size from two to twelve, but in general contained the following assortment; cut of beef, cabbage, cans of corn and peas, coffee, dry beans, oranges, apples, potatoes, sack of flour, loaf of bread, glass of jelly and quart of homemade preserves. And in some cases there was a chicken in the basket and in one a turkey. Ah— on Thanksgiving and Christmas days we are cheerful givers and the baskets we send out bring joy to many homes.

But how insufficient is our giving and how much farther the money we spend would go if both the giver and receiver knew more about real food value and the requirements of an active body. In those baskets were some solid, staple foods, some foods of moderate value and much of little worth except as it contributed to the joy of the little ones to find an orange in the toe of the stocking and an apple beside the plate. As a matter of fact, except the potatoes, fresh fruits and vegetables are expensive food. Canned peas and corn cost far more than the poor can afford, cabbage is a filler, not a fodder, jellies and homemade preserves are delicacies, but aside from the sugar they contain little real food value; coffee and tea are, of course, luxuries.

All this goes to this end—when we buy for charity we buy as ignorantly as when we buy for our own tables. And careful selection of the real staples—sugar, dried beans and peas, cheap fats, such as salt pork, lard and vegetable oils, flour and other bulk cereals, potatoes and dried fruits would make it possible to send to the needy a basket that would suffice for a week instead of for a day.

It might be shy of the things our overtrained desire's demand for the joy of eating, but it surely would satisfy the needs of the body—and that is what food is for.

I have not outlined my ideas for the purpose of suggesting any radical change in the diet. It would be wrong to infer that fruits and vegetables are not valuable foods, or that canned goods are not almost a necessity. What I do want to do is to drive home the fact that there are cheap foods and that in our usual careless buying we spend too much for foods that have relatively little food value and buy too small quantities of the concentrated fats, starches and proteids which are necessary to keep the body warm, repair waste tissue and furnish energy.

# The Economic and Dietetic Value of Canned Vegetables

## This Description of Latest Methods of Canning Foods Furnishes a Lesson to Dietitians and Teachers

*By Eleanor Lee Wright*

**Eleanor Lee Wright**

A GREAT many of us can look back to those days, not so long ago, when our mothers and grandmothers dried vegetables on the great roof over the back porch or out on the woodshed. It was a rare occasion that any of the wealth of vegetables grown were canned; and rarely did a can of any kind of vegetables find its way to the table, with the exception, perhaps, of an occasional can of tomatoes, corn or peas.

The rapid growth of industry and science in recent years has changed this.

Commercially canned vegetables receive the same skillful and scientific treatment that the other canned products receive. The essential steps are: gathering and grading, washing, preparing, filling the cans, sealing, processing and cooling, all of which have been discussed in former articles.

Canned tomatoes are the most popular of all canned vegetables, and are, therefore, canned more extensively than any other vegetable.

The tomato is a native of South America and at one time was thought poisonous. It was called a "love apple" and was used solely for the purpose of decoration. Nowadays it is known as the "poor man's meat" and is cultivated in all temperate regions. It is considered one of the most wholesome and important garden vegetables. It thrives best in sandy, well-fertilized soil. Special winter crops are grown in Florida and Texas, while the other states leading in the season's production are: Indiana, Maryland, Delaware, California, New Jersey, Virginia, Utah, Ohio, Missouri, Kentucky, Tennessee, New York, Colorado, Pennsylvania, Illinois, Michigan and Iowa. In fact, nearly every state in the Union cultivates tomatoes to a greater or less extent.

Tomatoes are canned in various sized tins, the Nos. 2, 2½, 3 and 10 being employed. Not only are tomatoes canned whole, but they are also packed as pulp, puree and in combination with other vegetables such as beans, corn and okra.

Packers of tomatoes who are careful to put out the best possible product have their factories located in the tomato fields. The tomatoes are then canned immediately after picking. The best grades are carefully selected for quality of the product as regards maturity and variety. They are then graded for uniformity of size as well as appearance and quality.

The tomatoes are scalded in great vats. This requires more skill and scientific management than is imagined, because if the scalding is improperly done, acidity, and consequently bulging of the can in the final product, is likely to ensue. After scalding sufficiently to loosen the skin, the tomatoes are quickly plunged into cold water in order that they do not receive over-cooking to interfere with the final processing. Then, too, the fiber is not toughened so that the coring can be done efficiently; nor are the juices lost.

Another advantage of commercially canned tomatoes is that the quick handling keeps them from getting soft after scalding, for if tomatoes are allowed to become piled in bulk they soften quickly, which detracts from their appearance and renders it almost impossible to can them whole.

After scalding, the tomatoes are cored and peeled. Great care is taken to avoid opening the seed cells, which again saves the juices and maintains the general good appearance.

When the peeling and coring is done, the tomatoes are carried to the packing machine, placed on a table and examined. The cans are then filled and weighed. Then they are heated gradually and sealed by a vacuum. This process is called exhausting. The final operation is sterilizing, which is done at the correct temperature for the product.

The packing of corn holds the second place in the list of canned vegetables, both as regards popularity in final consumption as well as the quantity of the pack.

Every one knows the history of corn: that it was cultivated by the Indians long before a white man landed on American shores.

The sweet or sugar corn is grown extensively throughout the United States, but Maine claims the superior quality for packing purposes. This is because of the natural qualities of the soil as well as the quick season for the product in that state. New York also produces excellent corn, particularly for canning purposes, as does Illinois and Wisconsin.

Many state canners' associations have set forth strict rules in regard to the packing of this product, and the National Canners' Association has recently started a system of strict inspection to insure a high quality. These regulations include the weight of the filled can as well as the quality of the corn.

The superior products are required to be packed from young, tender stock of natural color, containing a certain amount of moisture as well as having proper preparation.

Because of the many operations in packing corn, more machinery is used in the handling of large quantities than for any other product. Among these are huskers, silkers and cutters. Young, tender ears are selected and sent to the huskers. Then the corn is sent through a brushing machine to remove the silks. The cutting machines cut the kernels about half their depth. The corn is then carefully examined to see that no particles of silk and cob are in it. Then the corn is placed in a mixer containing a simple brine. The corn is then given a preliminary cooking, after which it is filled in the cans. The remaining operations are similar to those of other canned products, viz.: capping, sealing, cooling, labeling and casing with all accompanying inspection.

Canned corn is one of the most wholesome, cheap and nutritious of all the canned vegetables.

Peas are third in rank of importance of canned vegetables. They have been cultivated since time immemorial in Asia and were introduced into Europe in the middle ages. It is interesting to know that in some European countries the pod is eaten.

It has been but a comparatively short time ago when canned peas were imported from France, the quality of which was excellent to look upon, but the "fresh" and natural flavor was lacking. In order to gain the succulent, appetizing flavor of which Americans are fond, the packer of peas has scientifically accomplished this. In order to obtain the best quality, the peas selected for canning purposes are those grown in sections of the country where Nature is most kind. Good soil and cool, moist, steady temperature are necessary for the slow growth and ripening which are essential in order to obtain tender peas whose flavor is sweet.

The states around the Great Lakes are the ones which lead in the production of peas for canning purposes.

Similar to corn, the canning of peas has developed an amount of special machinery. The vines are cut with a mowing machine. The vines and peas are all taken to machines called "Viners," which thrash out the peas from the pods. The cleaner, washer, sizer, blancher, and filler all represent automatic operations which explains the saying "not touched by human hands." Succulent, tender peas are an advantage to a diet for obvious reasons.

When judging the quality of a can of peas the clearness of the liquor should be considered, together with the uniformity of the peas in regard to color, size and texture. The cloudy appearance of the liquor is usually due to overcooking.

Asparagus is the great American vegetable delicacy. It is a native of Europe and grows on banks of rivers, in meadows and bushy places, especially in sandy soil. In America asparagus is grown to the greatest perfection in California, in the deltas at the mouths of the Sacramento and San Joaquin rivers. Here are the finest asparagus beds in the world. While the night dew is still glistening, the succulent stalks are cut and quickly sealed in the sanitary cans, retaining all of their natural freshness and goodness.

Dykes or levees have been constructed, canals dug, and pumping machinery installed, so that it is possible for the growers to control the conditions to such a degree as to continually produce yields of the highest quality. The advantages are so great that other points cannot compete successfully.

The asparagus is grown in rows, and in the fall the plants are cut, the tops acting as a mulch.

The earth is banked over the rows to the depth of a foot or more. In the spring the stalks come through this light soil and mulch and are practically bleached. They are cut every day or every other day, the stalks being selected just as they appear through the ground. The work of cutting is done by hand by means of a long chisel-like knife. The stalk is cut back seven inches or more. The asparagus is collected in hampers or crates and carried promptly to the cannery as it is canned promptly to retain its fine flavor and tenderness.

At the factory the stalks are sorted into the various grades. There are five sizes, known as giant, mammoth, large, medium and small. The giant averages 14 stalks to a standard No. 2½ square can, mammoth 20 to 22; large 30 to 33; medium 40; and small 50. There may be several grades of each size, depending on color, tenderness and the straightness of the stems.

After the grading the stalks are cut in lengths to fit the cans and thoroughly washed in cold water, then placed in wire baskets and blanched, which consists of dipping in hot water for a period consistent with the maturity of the product. After blanching they are dipped in or sprayed with cold water to prevent softening and then packed in the sanitary cans with a light brine to fill the interspaces, the cans exhausted, the caps placed on and the cans then processed, and cooled, and sent to the packing room to be labelled and packed for shipment.

Although an analysis of asparagus shows approximately ninety-four per cent water, making the food value low, this vegetable is highly prized for its wholesomeness and flavor.

The preference for white or green asparagus is merely a matter of taste. The asparagus "sprouts" are said to contain a crystalline substance called "asparagine," which liberates a sulphur body upon digestion.

The nutritious, wholesome and palatable string or wax beans are grown for their pods rather than the seeds and are canned while green. Belonging to the botanical species Leguminosae, they require a warm, loose soil for proper production and are chiefly grown for packing purposes in the States of Michigan, Wisconsin, New York and Maryland. Their origin dates back into ancient centuries grown in southern Europe and Asia.

The young, tender beans are usually picked by hand by women at intervals necessary to secure a maximum number of small sizes. The small size is usually about two inches long and one-eighth-inch in diameter. They are taken to the factory without delay and are carried in slatted crates in order that they do not sweat and thus become tough.

The small beans are sometimes canned whole, while the larger beans are cut by machinery in pieces one-inch long.

After grading the beans are blanched or given a short preliminary cooking before going into the cans. Blanching is not for the purpose of whitening a product, but in order to make it more pliable for packing purposes. The cans are filled with the beans and a proper amount of brine; then sealed and processed as other canned product.

The lima beans originated in South America, but they are now produced successfully for canning in California, Michigan, Ohio, New York, New Jersey and Maryland.

A sickle is used for mowing these beans and they are then put through a viner and graded in the same method used for peas. After the beans are graded, blanched, washed and carefully hand-picked, they are filled into cans by an automatic machine. This last operation requires much care, inasmuch as the slightly kidney shape makes it difficult to pack them rapidly and solidly.

The best canned lima beans are young and tender, having a uniform, green color and clear liquor.

Apparently little thought is given to teaching methods of preparing lima beans. It is especially necessary to instruct those of foreign birth how to make this nutritious food palatable. The canned product assists greatly in solving this problem and it becomes a simple matter to teach a variety of ways to serve this valuable food.

The very popular pork and beans are packed with and without pork and with and without tomato sauce, and are labeled accordingly.

They are packed in Nos. 1, 2, 3 and 10 cans and are graded standard, extra standard and fancy. The best quality of these beans show no moisture, except those with the tomato sauce, and the beans should be tender, light brown, plump, and uniform in size and the tomato sauce should be well distributed throughout.

Red kidney beans are dark red and glossy in appearance and should be uniform in size and tenderness. These beans are usually packed plain—without sauce—and the can sizes are Nos. 1, 2 and 10.

Beets have been cultivated since the Christian Era, not only as a root-vegetable, but also as a leaf-vegetable, as well as a foliage plant. They are a native of the Old World in the temperate regions; Ohio, Maryland, Missouri, Minnesota and New York are the states which produce beets used for canning purposes.

Canning of beets presents more difficulties than is commonly imagined. By scientific methods everything has been done to produce a canned product which appeals to the eye and palate, from fertilizing the ground properly to selecting a suitable type of can.

Beets are carefully washed, cooked, peeled and graded and then canned whole, if the smaller sizes are used. The larger beets are sometimes cut in squares or slices. The shape and color of the beets varies according to the variety. Some are scarlet, others a very dark red, while the form may be turnip-shape or long and tapering.

For many years the French have canned the well-known "pot herb"—spinach. This vegetable, whose origin was in Asia, is commonly classed as "greens," the dietetic value of which is well-known, particularly to those specializing in food value.

The best variety of spinach is that having round or blunt leaves and smooth fruit. It grows so closely to the ground that heavy rains fill it with sand and dirt which has given no end of trouble to the producer who would pack a product free from grit. When grown in cool weather, tender spinach with a delightful flavor results.

The tender leaves, with practically no stem, are found in the best canned spinach. It is succulent, tender, free from sand and has a good green color. The more it tastes as freshly cooked spinach the better the canned product.

The canning industry has placed this valuable product on the table the year round, which is undoubtedly of economic as well as dietetic value.

Authorities differ as to the origin of the sweet potato, some giving credit to East India, others to South America. Now it is grown in all tropical and subtropical countries. It grows in central valleys of California and much of the product used for canning grows in New Jersey.

Sweet potatoes are canned whole and dry in sanitary cans. Sound potatoes, free from bruises or frost bites, are selected. First they are washed and parboiled, then peeled while hot. After they are placed in the can they are pressed in solidly, capped, sealed and processed. Some people confuse squash and pumpkin because in some countries of Europe squash is called pumpkin. Both belong to the gourd family. The pumpkin, when ripe, is yellow, weighing from fifteen to forty pounds, and the form is somewhat oblong and flattened at the ends.

For canning, pumpkins are thoroughly cleaned and cooked. The meat is reduced to pulp by a special machine. Some canners use a centrifugal machine to separate the soft, palatable pulp from the coarse fiber, while others simply screen and strain it.

The best canned pumpkin is a dark rich color—darker than the uncooked product. It should be moist, but not watery. A good test is to note whether or not it will heap up moderately when poured into a dish.

The two best varieties of squash for canning are the Marrow and Hubbard. It is prepared practically by the same methods as pumpkin, but sometimes it is cut into squares instead of mashed or pulped.

Sauerkraut has proved to be a very popular canned product. The points to consider in judging a can of this product are: the fineness of the shreds, amount of water, tenderness, odor, flavor, color and the fullness of the can as well as to note that it is packed solidly. It should have long shreds and a rich, light yellow color. The absence of any odor means that it has not been cured properly.

It is interesting to know that kraut makers have been imported from Munich and other famous kraut-making localities.

For many years okra has been cultivated in the southern states, while its history goes back into the remote ages of the Old World. Louisiana and Mississippi are the chief producers of this vegetable. Just as pears turn red from over-heating, canned okra will become pinkish if over-cooked. The canned product brings to the northern states the succulent delicious food so popular in the South.

### Lesson on Canned Vegetables

I. Have the students select pictures of the vegetables mentioned in this article, from a seed catalog. These pictures could be cut out, pasted in notebooks and accompanied by notes regarding both the fresh and canned product.

II. If convenient, select various brands of canned vegetables and have the students judge the products. The points to be noted are brought out in the above article. The products which should be judged are, chiefly: tomatoes, corn, peas and string beans.

III. If the season is convenient, have the students prepare pumpkin-making a comparison of the result with the canned product in:

1. Time and labor.
2. Fuel.
3. Flavor, color and general appearance.

Make notations of conclusions.

IV. Name five brands of pork and beans.

V. Which canned vegetables are considered most economical?

VI. What is the dietetic value of canned spinach? In what diet disease is it recommended?

VII. How would you judge canned saurkraut?

VIII. Where is the best asparagus grown? Why?

IX. In what states is okra grown?

X. Give the commercial method of canning tomatoes. Compare with the home methods.

XI. How many ways can you suggest for using canned lima beans?

XII. What special machinery is used in commercially canned peas? What other canned vegetables have developed new machinery?

XIII. Plan dinner menus for a week using canned vegetables.

XIV. What canned vegetables are used as luncheon dishes? Which would be suitable for breakfast and how would you prepare them?

XV. What has science done to maintain the natural goodness of canned beets?

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The manufacture of condensed milk has been permanently discontinued at the Borden plant at Elgin, Ill. This plant is one of the oldest in the United States, having been established 54 years ago.

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The tenth annual convention of the Flavoring Extract Manufacturers' Association will be held in the new Hotel Commodore, Forty-second street and Lexington avenue, New York City, on June 18, 19 and 20, 1919.

# Commissioner Tells of Belgium Relief Work

PRENTISS N. GRAY of the Commission for Relief in Belgium, returned to New York in April after a stay of five weeks in Belgium. Mr. Gray made the tour of inspection through Belgium and northern France upon which Herbert Hoover, director-general of the American Relief Administration, based his recommendation that shipments from America by the Commission for Relief in Belgium cease on May 1st.

Since the beginning of the war the Commission for Relief in Belgium has shipped abroad more than 5,000,000 tons of food, costing over $750,000,000. Nine hundred and fifty full cargoes were shipped from the Atlantic ports alone, in addition to large re-shipments from England, originating in all parts of the world.

During the European struggle the Commission became the best-known and best-loved of all war relief organizations throughout the world.

Mr. Gray was the last American to leave Belgium after our entrance into the war. At the request of Mr. Hoover, he remained for a month after Brand Whitlock, the American minister, had left the country, for the purpose of turning over affairs to the Dutch and Spanish delegates who were to replace the American staff.

In discussing the termination of the work of the Commission and conditions which now exist in Belgium, Mr. Gray in an interview at the offices of the American Relief Administration, 115 Broadway, emphasized the desirability of diverting much of the charitable relief which has been going to Belgium to the liberated nations of Central Europe. Women and children of Poland, Serbia and Armenia, he said, were particularly in need of supplies although all of the nations recently released from the German-Austrian yoke were suffering. Belgium, now that it is able to communicate freely with the commercial world, is able to accept the responsibility of internal relief, according to Mr. Gray.

"The whole endeavor of the Belgian people is headed toward a restoration of normal commerce and for this reason it was deemed particularly advisable to allow the ordinary supply and demand to govern the food trade of the country," said Mr. Gray. "For the time being, however, they must continue a governmental restriction on selling prices in Belgium to prevent inordinate profiteering, and consequently the Belgian government has determined to establish its own agency for the purchase of food supplies in this country. And the people are willing to continue conservation regulations until local industry is re-established.

"After four and one-half years of activity in feeding the population of Belgium and occupied France, the Commission for Relief in Belgium closed its operations on May first. During this time the Commission delivered into the occupied territories over 5,000,000 tons of food costing more than $750,000,000 which has been sufficient to keep from starvation these ten millions of people.

"Since its inception the Commission has been looked upon by the Allied governments almost as a diplomatic organization and has been forced to negotiate their own agreements with the Central Empires and the Allied governments. I was the last of its representatives to leave Belgium and remained in enemy territory until a month after the declaration of war between the United States and Germany and after the American ministers had been recalled from Berlin, Vienna and Brussels.

"Shortly after the signing of the armistice the Commission announced to its supporters in the United States that the Belgian people required no further charitable contributions as, on regaining their liberty, they desired to stand on their own feet and to take care of their own people without outside assistance. The investigations which I made recently in Belgium for Mr. Hoover have convinced him that the time has come when the Belgian and French populations of the invaded districts can arrange their own food imports through their own governments and normal commercial channels. Therefore it has been arranged that on the first of May shipments from America by the Commission for Relief in Belgium will cease.

"The French government will, at the same time, include the people of the devastated regions in the general French program of feeding."

In describing conditions in Belgium since the armistice, Mr. Gray said further:

"The Belgian people have passed through three distinct phases since the armistice: First, the exaltation of their freedom and the return of their beloved king and army, when they believed that food and work would be abundant and that all their troubles had fled; second, a period of depression when they found that the military victory did not immediately bring industrial prosperity and unstinted supplies of food, and when their new-found freedom of movement allowed them to take stock of the whole of the damage done to their country; third, a spirit of firm determination to take up this work of reparation and reconstruction and regain the prosperity which they had before the war.

"The change from the feeling of absolute depression to this brave resolution has been most marked during the past thirty days. The docks of Antwerp have assumed almost a normal appearance. With the movement of the American and British naval bases from Rotterdam to Antwerp, together with the fleet of the Commission for Relief in Belgium, the port has taken on a marked activity.

"Eight thousand tons of raw cotton have arrived at Ghent and it has been found possible to start about fifty per cent of the cotton mills in this vicinity. The steel works of Liege and Hougree will be running in part by June and the coal mines of the Borinage and the Centre are now producing almost to their fullest capacity.

"Belgium has been able to establish a commercial credit of fifty million dollars in the United States through a consortium of banks and already orders for textiles and machinery are beginning to be placed in the United States."

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## The Middleman

Much has been said about "cutting out the middle-man" and distributing goods direct from the producer to the consumer. It is apparent that such a method is available to comparatively few farmers. Outside of isolated instances of small dealings with individuals by parcel post, or of purchases at the farm by automobile tourists, direct distribution means that the farmer must truck his goods into the city and peddle them through the streets or sell them at the curb. This is impractical and from the farmer's standpoint is not an economical way of marketing farm produce. Like so many suggestions that sound meritorious the "direct to the consumer" plan of distributing food sounds better than it works.

# Four Important Dicisions In Food Regulation

## Supreme Court Gives the Final Word In Litigations That Have Been Long Before the Courts

### Bleached Flour

A DECREE has finally been rendered in the long and much mooted "bleached flour" case that has been in litigation since 1910. The case was that of the United States of America vs. 625 sacks of flour which was the property of the Lexington Mill & Elevator Company of Lexington, Neb.

It was an unusual case in that it went through the district court, the court of appeals and the United States supreme court and then back to the district court, where it had started, and the claimant having failed to appear in court, the decree was rendered by default against the Lexington Mill & Elevator Company, and the flour was ordered destroyed. Upon the return of the case to the district court the attorney for the Government amended the complaint by striking out the clause over which the principal fight had been waged and the defendant company then withdrew its answers and permitted the decree to be entered. The paragraph stricken out by the amendment of its petition by the Government reads as follows:

> "In that by the treatment as aforesaid (bleaching process), the said flour has been caused to contain added poisonous, or other added deleterious ingredients, to-wit: nitrites or nitrite reacting material, nitrogen peroxide, nitrous acid, nitric acid, and other poisonous and deleterious substances, *which may render said flour injurious to health.*"

To get at the real meaning of the decision it is necessary to briefly review the case:

The petitioner, the United States of America, proceeding under Section 10 of the Food and Drugs Act, sought to seize and condemn 625 sacks of flour in the possession of one Terry, which had been shipped from Lexington, Neb., to Castle, Mo., and which remained in the original, unbroken packages.

**Sections of the Food Act Referred to**

**Sec. 7. That for the purpose of this act an article shall be deemed to be adulterated: . . . In case of food:**

**First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.**

**. . . . . . .**

**Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.**

**Fifth. If it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health.**

**. . . . . . .**

**Sec. 10. That any article of food, drug, or liquor that is adulterated or misbranded within the meaning of this act, and is being transported from one State, Territory, District, or insular possession to another for sale, or, having been transported, remains unloaded, unsold, or in original unbroken packages . . . shall be liable to be proceeded against in any district court of the United States within the district where the same is found, and seized for confiscation by a process of libel for condemnation. And if such article is condemned as being adulterated or misbranded, or of a poisonous or deleterious character, within the meaning of this act, the same shall be disposed of by destruction or sale, as the said court may direct.**

The amended libel charged that the flour had been treated by the "Alsop" process by which nitrogen peroxide gas, generated by electricity, was mixed with atmospheric air and the mixture then brought in contact with the flour and that it was thereby adulterated under the fourth and fifth subdivisions of Section 7 of the act, namely:

> (1) In that the flour had been mixed, colored and stained in a manner whereby damage and inferiority was concealed and the flour given an appearance of being better than it really was;
>
> (2) In that the flour had been caused to contain added poisonous or other added deleterious ingredients, to-wit: nitrites or nitrite reacting material, nitrogen peroxide, nitrous acid, nitric acid and other poisonous and deleterious substances *which might render the flour injurious to health.*

The libel also charged that the flour was adulterated under the first subdivision of Section 7 and was misbranded.

The Lexington Mill & Elevator Company claimed the flour and in their answer to the libel admitted that it had been treated by the Alsop process, but denied that it had been adulterated and attacked the constitutionality of the act.

The constitutionality of the act was not passed upon by the court which rendered a decision that the flour was adulterated and a judgment of condemnation was entered.

The case was appealed by the defendent company to the Circuit Court of Appeals on the grounds that the trial court had erred in instructing the jury. Part of the charge excepted to reads:

> "The fact that poisonous substances are to be found in the bodies of human beings, in the air, in potable water and in articles of food such as ham, bacon, fruits, certain vegetables and other articles, does not justify the adding of the same or other poisonous substances to articles of food such as flour, *because the statute condemns the adding of poisonous substances. Therefore the court charges you that the Government need not prove that this flour or foodstuffs made by the use of it would injure the health of any consumer.* It is the *character*, not the *quantity*, of the added substance, if any, which is to determine this case."

The defendent company claimed that the charge to the jury should have stated that it was incumbent upon the Government to prove that the process used added poisons *in sufficient quantity, condition* and *amount as may render said flour injurious to health.*

The Court of Appeals reversed the decision of the lower court on the grounds that the testimony was insufficient to show that by the bleaching process the flour was colored as to conceal inferiority and was thereby adulterated within the provisions of subdivision 4; also that the trial court erred in instructing the jury that the addition of poisonous substance in any quantity would adulterate the article.

The case then went to the supreme court, where the decision of the court of appeals was upheld and the case remanded to the district court for retrial. In its decision the supreme court laid particular emphasis on the fact repeatedly established in many cases that every word in a statute has a meaning and must be given its full meaning in the interpretation, and it called attention to the instructions to the jury given in the court of trial where the last words in Section 7 of the Food and Drugs Act are "If it contain any added poisonous or other added deleterious ingredient *which may render such article injurious to health.*"

"The instructions" the court held "of the trial court permitted this statute to be read without the final and qualifying words concerning the effect of the article on health. If Congress had so intended the provision would have stopped with the condemnation of food which contained any added poisonous or other added deleterious ingredient."

## The "Creamo" Case Decided

As a result of the decision of the Supreme Court of the United States, rendered April 21, the Blanton Mfg. Co. of St. Louis, Mo., cannot use its trademarked name "Creamo Oleo-margarine" on the oleo-margarine which it is now making unless the word "brand" is used with it. The decision is a clear cut victory for the Department of Agriculture and establishes the right of the department to refuse permission to a manufacturer to use a name which in the opinion of the officers of the department is deceptive and misleading, even though that name has been registered and was approved of and has been in use for a considerable period of time. The manufacturing company also contended that the Bureau of Animal Industry had no jurisdiction to inspect an oleo-margarine factory, but this point was decided against the company by the court without argument.

The case was started in 1914 when the Department of Agriculture served notice on the Blanton Mfg. Co. that after March 1st of that year the company must cease using the name "Creamo Oleo-margarine" on its packages of oleo-margarine and failing to do so the department would seize all labels and wrappers.

The Blanton Mfg. Co. asked an injunction against the carrying out of this edict which was granted by the District Court and affirmed by the Court of Appeals. The case was then carried to the Supreme Court by the officials of the Department of Agriculture, where a decision was given reversing the action of the two lower courts and favoring the contention of the department officials. Mr. Justice McKenna delivered the opinion of the court.

In giving the decision he reviewed the evidence which had been introduced by the Blanton Mfg. Co., the high spots of which are as follows: The Blanton Mfg. Co. has been manufacturing oleo-margarine since 1904, that for a long period of time cream was churned with the margarine, that in 1906 the company applied for a patent on the name "Creamo Oleo-margarine," which after being investigated and approved of by the Department of Agriculture, was granted in 1908. The company admitted that it is no longer churning its margarine in cream, but offered to use 10 per cent of cream. The company denied the department's claim that the name "Creamo" is deceptive and misleading, asserting that it is an arbitrary name.

The Department of Agriculture insisted that the name "Creamo Oleo-margaine" is deceptive and suggested that "Creamo *Brand* Oleo-margarine" be used. It also contended that the duty of inspection is a continuous one and not exhausted by one act, that the approval of the name was given when the company was using 30 per cent cream in churning and that the department had the right to withdraw its approval of the name when the company changed its formula. The court upheld the contentions of the Department of Agriculture, saying in part:

"It will be observed from the quoted provisions of the meat inspection act that two conditions are presented: If 'Creamo Oleo-margarine' is to be regarded as the name of the product it is false and deceptive, whatever it may have been formerly; if it be asserted to be an established trade name it has not received the approval of the Secretary of Agriculture and hence its use is without legal permission."

Justice McReynolds took no part in the decision of the case.

## Cereal Sausage Decision

The case known as David F. Houston, A. D. Melvin and James J. Brougham, Appellants, vs. The St. Louis Independent Packing Co. was decided by the Supreme Court of the United States April 14 against the packing company and the effect of the decision is to prohibit the labeling as sausage of any compound of chopped or minced meats containing cereal in excess of 2 per cent and water or ice in excess of 3 per cent.

Because of the widespread interest in this case and the fact that it may come up again for rehearing we print the decision as rendered by the Supreme Court in full, omitting only the references to other cases. It is as follows:

Mr. Justice Clarke delivered the opinion of the court.

The Secretary of Agriculture, assuming to exercise authority under the "Meat Inspection" Act, approved June 30, 1906 (34 Stat. 669, 676, 678), promulgated a regulation, effective April 1, 1913, in part as follows, viz.:

"Washington, D. C.,
"Feb. 28, 1913.

> "For the purpose of preventing the use in interstate or foreign commerce of meat or meat food products under any false or deceptive name, under the authority conferred on the Secretary of Agriculture by the provisions of the act of Congress, approved June 30, 1906 (34 Stat. 674), Regulation 18 is hereby amended by the addition of Sections 15 and 16, to read as hereinafter set out.
>
> "James Wilson,
> "Secretary of Agriculture.

"(Section 16, paragraph 1.) Sausage shall not contain cereal in excess of 2 per cent; when cereal is added its presence shall be stated on the label or on the product.

"(Paragraph 2.) Water or ice shall not be added to sausage, except for the purpose of facilitating grinding, chopping and mixing, in which case the added water or ice shall not exceed 3 per cent, except as provided in the following paragraph."

Immediately after the effective date of this regulation the appellee, an extensive manufacturer of sausage, correctly interpreting it as prohibiting the marking, stamping or labeling as "sausage" any compound of chopped or minced meats containing cereal in excess of 2 per cent and water or ice in excess of 3 per cent (except as otherwise provided), filed the bill in this case in the District Court of the United States for the Eastern Division of the Eastern District of Missouri, averring that "sausage" made by it with cereal and water in excess of the requirements of the regulation was wholesome and fit for human food and that the effect of the order would be to exclude its product from interstate commerce, to its great and irreparable damage. The prayer was that the defendants, the Secretary of Agriculture and the officers subordinate to him, be enjoined from refusing to mark as "Inspected and passed" all "sausage" manufactured by the petitioner found to be sound, healthful, and wholesome, and which contained no dyes, chemicals, preservatives or ingredients which would render such "sausage" unsound, unwholesome or unfit for human food; that they be required by mandatory injunction to mark such "sausage" as "Inspected and passed," and that the regulation be declared to be unauthorized by law, null and void.

### Refused to Pass

The Secretary of Agriculture then answered admitting that it was the purpose of the department to refuse, and that it had refused to mark as "Inspected and passed" as "sausage" the product of the appellee unless manufactured in compliance with the regulations complained of, and, as warrant therefor, he quoted in his answer from the act of Congress the following:

*"No such meat or meat food products shall be sold or offered for sale by any person, firm or corporation in interstate or foreign commerce under any false or deceptive name, but established trade-name or names which are usual to such products and which are not false and deceptive and which shall be approved by the Secretary of Agriculture are permitted,* and that said Secretary of Agriculture shall, from time to time make such rules and regulations as are necessary for the efficient execution of the provisions of this act, and all inspections and examinations made under this act shall be such and made in such manner as described in the rules and regulations prescribed by the Secretary of Agriculture not inconsistent with the provisions of this act."

Answering the allegation of the bill that the appellee's trade in "sausage" would be ruined by the enforcement of the regulation, the Secretary of Agriculture averred that the appellee manufactured and sold large quantities of sausage which did not contain any cereal or added water, and added:

### Deceptive Label

"That the manufacture and sale of a product as sausage which product contains added cereal and water in quantities as described in plaintiff's bill, or in any quantities in excess of the amount designated in said regulation, effective April 1, 1913, is false and deceptive; that the ordinary consumer of sausage manufactured by the plaintiff has no knowledge or information that sausage contains cereal and added water, that such information is not conveyed to persons who purchase plaintiff's sausage at retail by any method of marking or branding now or heretofore in use by plaintiff, and that it is impracticable and impossible in the ordinary course of manufacture and distribution of sausage to mark or brand the same so that the purchaser at retail or the consumer will be informed as to the amount of cereal and water added thereto."

An elaborate trial on the merits resulted in the dismissal of the bill by the District Court, but this judgment was reversed by a divided Circuit Court of Appeals and the case was remanded with directions to award the appellee injunctions substantially as prayed for. The case is here for review on appeal.

The claim made by the Government in the lower courts that the compound of meats, cereal and water, which the appellee claimed the right to sell as "sausage" was unwholesome is abandoned in this court and the only question argued and submitted is whether it was within the power of the Secretary of Agriculture to prohibit the use of the word "sausage" as false and deceptive, within the meaning of the act, when applied to the appellee's product.

The foregoing statement shows that the question for decision in this court is: Whether, in promulgating the regulation assailed, the Secretary of Agriculture acted arbitrarily and in excess of the authority given him by the act of Congress, to make, from time to time, such rules and regulations as are necessary for the efficient enforcement of the act, or whether he acted in good faith and upon substantial grounds in deciding that the sale of appellee's product as "sausage" resulted in deception of purchasers and consumers, so that his determination of such question of fact was within the power conferred upon him as the head of an executive department of the Government and is not subject to review by the courts.

The contention of the Government is that the product of the appellee being a meat food product, put up in containers—casings or canvas coverings—it falls within the prohibition of the act that such product shall not be sold or offered for sale by any . . . corporation in interstate commerce "under any false or deceptive name," and that the regulation being for the purpose of preventing its sale under the false or deceptive name of "sausage," it is plainly within the authority given to the Secretary of Agriculture to make rules and regulations for the efficient execution of the act.

### Says Its Welcome

On the other hand, the contention of the appellee is that the product being wholesome and containing no dyes or chemicals, which render it unfit for human food, an earlier provision of the act applies, which it is asserted deprives the Secretary of all discretion in such a case and requires that he shall cause the product to be marked "Inspected and passed," and also, it is claimed, that the word "sausage," when qualified as was required by prior regulations by including in the label such expressions as "Cereal added," or "Sausage and cereal," was not a false or deceptive name.

The contention of the appellee that if its product is wholesome, and if it does not contain dyes and chemicals, the act imperatively requires the Secretary to mark its product as "Inspected and passed" is clearly unsound if the word "sausage" as applied to it is false and deceptive, for plainly the provision of the act requiring the marking of the product must be harmonized with the subsequent provision that no such meat or meat food product shall be sold or offered for sale under any false or deceptive name.

Whether or not the term "sausage," when applied to the product of the appellee, in which more than the permitted amount of cereal and water is used, is false and deceptive is a question of fact, the determination of which is committed to the decision of the Secretary of Agriculture by the authority given him to make rules and regulations for giving effect to the act, and the law is that the conclusion of the head of an executive department on such a question will not be reviewed by the courts, where it is fairly arrived at with substantial evidence to support it.

That the case before us is one for the application of this rule is shown by the record, which contains an interesting history of what large manufacturers have come, in a more or less gradual progress, to regard as the proper ingredients of the product which they have sold as sausage, and which also shows, without conflict, that the ultimate purchaser and consumer of the product is not informed and in general does not know of the presence of cereal and added water in it. The evidence shows that the poorer classes of beef and pork are used in making sausage, such as trimmings, hearts, ears, cheeks, liver, snouts and tripe, "and all that kind of things," but the preferred material is bull meat; that such as trimmings, hearts, ears, dry and has not the cohesive properties which will unite it when ground or minced into the mass popularly known as "sausage" and that, for this reason, corn meal, potato flour and other like substances have come to be used by the trade as "binders" to give it the desired cohesiveness and appearance.

### Old Methods

The president of the appellee testified that when he first began making sausage twenty-five years ago he used anywhere from 5 per cent to 12 per cent of cereal and that when the regulation was promulgated he was using 2 or 3 per cent to 10 per cent, when he used any at all, but that in a part of his product he did not use any, notably in that which was sent into Pennsylvania, where the use of cereal was prohibited by statute; that when he used 10 per cent of cereal he added from 15 to 20 per cent of water, and that in general water was added in double the percentage of cereal used; and that the cereal, usually corn meal or corn flour, was resorted to to cheapen the product and cost about 2 cents a pound, while the meat used cost from 6 to 15 cents a pound.

Before the regulation assailed was promulgated cereal and water were generally used by large manufacturers of sausage, but all of the representatives of manufacturers, other than those of the appellee, who were called as witnesses, testified that they were obeying the regulation, and the agreement of such witnesses was general that retail purchasers and consumers did not know of the presence of cereal in what they were buying as sausage.

There is conflict in the evidence as to whether the use of cereal in excess of the prescribed amounts renders the product less digestible and wholesome, whether it reduces its food value, and whether the sausage will ferment in a shorter time than when cereal is not used at all, or when used in smaller quantities.

### The Decision

The result, thus stated, of the examination of the record before us shows beyond controversy that the Secretary of Agriculture in promulgating the regulation complained of acted on substantial evidence and with sufficient reason in concluding that persons purchasing or using as "sausage" the appellee's compound of various meats, cereal and water would be deceived as to its composition and as to its value as a food product, and we cannot say that it was an abuse of discretion to prohibit the use of the word "sausage" as applied to it, rather than to prescribe qualifying terms explanatory of it. Few purchasers read long labels, many cannot read them at all, and the act of Congress having committed to the head of the department, constantly dealing with such matters, the discretion to determine as to whether the use of the word sausage" in a label would be false and deceptive or not, under such circumstances as we have here this court will not review and the Circuit Court of Appeals should not have reviewed and reversed the decision of the Secretary of Agriculture.

The decree of the Circuit Court of Appeals for the Eighth Circuit is reversed and the case remanded for further proceedings not inconsistent with this opinion.

A motion for rehearing of the case has been made by the St. Louis Independent Packing Co.

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## "Mary Jane" Syrup Decision

This case, which is familiarly known as "The Mary Jane Case," but is officially entitled Corn Products Refining Co. vs. V. C. Eddy, B. J. Alexander, C. H. Lorridge et al. The defendants are officials of the State Board of Health of Kansas.

The case was started in the District court of Kansas when the State Board of Health issued an order to the Corn Products Refining Company, which, if complied with, would compel this company to place the word "Compound" on the label and state definitely on the label the percentage of each ingredient of which the syrup was composed. The Corn Products Refining Company asked an injunction against the enforcement of this order by the State Board of Health.

Plaintiff brought an equitable action against the members of the Board of Health in one of the district courts of the state, setting up the pertinent facts, alleging that defendants were acting under the authority of the state law and certain regulations adopted by them pursuant to it, and among others Regulation 6, requiring that in case of syrups the principal label should state definitely the percentage of each ingredient in the case of compounds, mixtures, imitations, or blends; plaintiff further averring that the state law and the regulations referred to, particularly Regulation 6, were void because in conflict with the interstate commerce clause (Art. 1, sec. 8) of the Constitution of the United States and the Act of Congress of June 30, 1906 (ch. 3915, 34 Stat. 768), and also in conflict with the provisions of sec. 1 of the fourteenth amendment; and that defendants were interfering with plaintiff's interstate commerce and with its lawful business in the state of Kansas, thereby threatening plaintiff with great and irreparable damage; and praying for an injunction.

### District Court Says

Their general demurrer having been overruled, defendants answered and the case came on for hearing, with the result that the district court made a finding "that all of the allegations of plaintiff's petition are true," and adjudged that there should be a perpetual injunction restraining defendants from interfering with the sale of "Mary Jane" in the state of Kansas upon the ground that it was misbranded when sold under the label above referred to and in particular from interfering, because of Regulation 6, with persons dealing in or selling the syrup, so branded, within the state.

Upon appeal the supreme court of Kansas reversed the judgment with direction that the district court enter judgment for the defendants (00 Kan. 63); and the case went to the U. S. Supreme Court on writ of error under sec. 237, Judicial Code, as amended September 6, 1916 (ch. 448, 39 Stat. 726), upon the contention that the Kansas statute and the regulations adopted by the state board, pursuant to it, as interpreted and applied by the state court of

(Continued on page 38)

# Federal Law Reduces False Branding of Foods

## Less Deception Than in Any Other General Class of Merchandise; Department of Agriculture Reviews Notices of Judgment Covering Food and Drug Prosecutions

REPORTS on more than 6,300 food and drug cases, including both criminal prosecutions and seizures terminated in the Federal courts, have been published in the form of Notices of Judgment since the enactment of the Federal Food and Drugs Act, according to a recent statement of the officials of the Bureau of Chemistry, United States Department of Agriculture, in charge of the enforcement of that law. This number represents only instances of flagrant misbranding or adulteration in which, in the opinion of the officials, it was necessary to prosecute the party responsible or seize the goods in order to check the practice. Thousands of other forms of minor misbranding, say the officials, have been corrected by serving notices on the parties responsible without recourse to formal legal action. The food industries in many instances voluntarily have changed trade practices of long standing.

The violations of the act on which the court actions were based cover nearly every food product from alimentary paste to zwieback, including soft sardines from Maine, as well as spoiled salmon from Washington; frozen oranges from California, as well as sweated grapefruit from Porto Rico. Prosecutions on patent medicines range from so-called "sure cure" for tuberculosis and influenza to candy cathartics and castor oil. In the beverage line, cider as well as champagne, grape juice as well as gin, water as well as wine, have been called to the bar—of the Federal courts — to show cause why they should not be poured into the sewer and thus diverted from the alimentary canal.

### Foods Adulterated

Contamination is one form of adulteration which covers a large number of violations, and is due principally to carelessness or lack of knowledge of proper methods for preparing, handling, shipping, and storing perishable foods, as is the case with milk having a high bacterial count; spoiled fish, rotten eggs, swelled canned goods, decomposed tomato pulp, and putrid meat.

The food specialists have done extensive experimental work in developing methods for preparing and handling perishable foods, and in aiding manufacturers, shippers and dealers to apply those methods in a practical way. The marked improvement in the methods of handling perishable foods during recent years has been due, in the opinion of the food officials, as much to the experimental and educational work as to the regulatory action under the Food and Drugs Act.

Substituting a cheaper article of food in whole or in part for a more expensive one is a favorite form of adulteration which in some instances relieves the pocketbook without injury to health, and leaves the purchaser none the wiser. In many instances of this form of adulteration, however, the substituted ingredient has less food value or nutritive material than the genuine article. Such forms of substitution include the addition of ground pepper shells to pepper; chicory to coffee; dilute acetic acid to cider vinegar; distilled vinegar to cider or sugar vinegar; glue to gelatine, and artificial extract to vanilla flavor. The milk man is not the only visitor to the pump or hydrant. Added water or excessive moisture has been found in oysters, fruit juices, canned goods, vinegar and grains, and even in dried apples as well as in other food products.

The cases in which it was charged that ingredients harmful to health had been deliberately added to foods are few in number. The Federal Food and Drugs Act specifically prohibits the addition of such ingredients to food products. The use of harmful preservatives is unnecessary and few manufacturers care to risk prosecution or injury to the reputation of their product by adding substances held to be harmful to health. Harmful ingredients in food are usually acquired by the development of harmful bacteria from contamination, or harmful ingredients accidentally acquired during the process of manufacture, as, for instance, zinc, copper and arsenic from utensils or materials used in the manufacture of gelatine.

### Food Falsely Labeled

The forms of misbranding range from a deliberate false statement as to the nature of the product, as, for instance, labeling a low-grade, cheap coffee with the name of a higher and more expensive grade, such as Mocha or Java, to subtle designs and devices, as the placing on a can of cotton seed oil labeled merely "Salad Oil," the picture of an olive tree and a map of Italy, in order to convey the impression that the product is olive oil from Italy.

Among other forms of misbranding of foods may be mentioned the labeling of distilled vinegar as apple cider vinegar; the labeling of macaroni as being of foreign manufacture when it was made in the United States; the labeling of apples as New York State apples when they were grown in other states; the labeling of synthetic methyl salicylate as oil of birch; the misbranding of lake herring as white fish; the labeling of preserves as being composed of loganberries and sugar sirup when the product actually contains approximately 25 per cent of glucose, and the labeling of an artificial flavor as pure vanilla extract.

Foods in package form are also misbranded as to the quantity in the packages. Shortage in weight or measure as stated on the labels, or the absence of any statement regard- the quantity of the contents, was the basis of a charge for misbranding in several of the food cases.

Misbranding in its various forms is aimed usually to convey the impression that the article is of a higher grade or more expensive than it actually is. As a dishonest clothing merchant will sometimes brand —as all wool—cloth which is a mixture of wool and cotton, so the dishonest food manufacturer or merchant at times tries to pass off his cheaper foods under the name of higher priced ones. Misbranded foods which are not also adulterated may be wholesome and nutritious, but the purchasers are misled as to the quality or quantity and are induced in many instances to pay a higher price than the articles are worth. As a result of the operations of the Food and Drug Act there is today much less misbranding in foods than in any other general class of merchandise sold to the public.

### Patent Medicines

The charge in the majority of the more than six hundred patent and proprietary medicine cases included in the Notices of Judgment was based on false and fraudulent statements on the labels as to the therapeutic or curative powers of the preparations. Worthless preparations carried claims on the labels of curative powers for such dangerous diseases as tuberculosis, diphtheria, scarlet fever, typhoid fever and influenza, as well as for a host of less fatal maladies.

Many cases were based on the adulteration or misbranding of stock feed. The adulteration charge usually consisted in the substitution of a substance with little feeding value for one of higher feeding value, as, for instance, ground cotton seed hulls in place of cotton seed meal; rice hulls in place of rice bran, and mill and elevator screenage in place of mill feeds. The favorite form of misbranding as shown by the Notices of Judgment was to claim on the labels a higher percentage of protein and fat and a lower percentage of crude fiber than the feeds actually contained. Charges of short weights were also made in a number of stock feed cases.

### Improvement in Trade Practices

Most of the grosser forms of adulteration and misbranding on which the earlier cases were based have been eliminated as general trade practices, say the officials. Occasional sporadic instances on the part of widely scattered dealers to adulterate and misbrand in the old way are still detected, but such practices are no longer general. New and more subtle forms of adulteration, however, are appearing. While the chief part of the great volume of food products that is shipped into interstate commerce is free from adulteration and misbranding, vigilance on the part of inspectors is necessary to checkmate the few who continue to adulterate.

The industries frequently volunteer to eliminate practices which the department holds to be contrary to the requirements of the Food and Drugs Act, and as a result many reforms of far-reaching effect are brought about without recourse to legal action. Among the many trade practices that have been checked or almost entirely eliminated either by legal action, volunteer co-operation on the part of the industries or by educational campaigns may be mentioned a few instances, as the coloring of canned peas with copper; the use of dangerous preservatives; the sweating of immature oranges and grape fruit to give them the appearance of ripe fruit; the adulteration of grain with water to give added weight; taking oysters from water polluted with sewage; canning decomposed fish; the manufacture of foods from refuse products, especially tomato products, and making baking powder and gelatine in such a way that the finished product contains lead or arsenic from the utensils or materials used in the manufacture.

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## Grain Corporation Holds Meeting

SEVERAL alternative plans to cover varying estimates as to the 1919 wheat crop and at the same time protect the interests of both producer and consumer were considered at the four-day conference of executives of the Grain Corporation with Julius Barnes, United States wheat director.

Future policies of the Grain Corporation were determined at the conferences as well as the personnel of the organization. With few exceptions, the executive officers remain the same. The second-vice-presidents returned to their homes yesterday.

Discussing the recent meeting with his executive organization, gathered from all parts of the United States, Mr. Barnes said:

"With the spring wheat now two weeks later than normal, as a result of unfavorable weather conditions, there will undoubtedly be a decreased acreage of spring wheat, which promises less and less chance of there being produced in this country the very large exportable surplus of wheat popularly expected."

"Crop indications are that wheat will be traded in at the government fair price basis, but if not, any readjustment of price to protect consumers of flour can most readily be made through the flour manufacturing facilities under proper safeguards.

"It was also recognized at the conference that it was imperative that the resale price below the government fair price basis should be reflected to the bread consumer. Another possibility taken into consideration was that crop developments may be such that wheat may be traded in above the government fair price basis, in which case the wheat director would not be an influence in the market as there was no maximum price policy determined by Congress."

"In general, the three days' session on all the problems of administering the wheat guarantee left in the minds of the organization the feeling that, though there were many complications and difficulties, the operation could be carried forward safely and meet the new conditions as they developed without danger of loss to the United States treasury."

Robert A. Lewin, who has been the corporation's second vice-president in San Francisco, is leaving the organization to take advantage of an attractive opportunity in the oil business. W. A. Starr, who has been volunteer assistant in San Francisco, will be appointed to succeed Mr. Lewin for the 1919 operation.

H. B. Jackson, second vice-president at Chicago, had planned to resume his former business connections, but since President Wilson cabled his request to the organization to continue, Mr. Jackson has consented to reconsider his decision to terminate his connection with the grain corporation.

Edward M. Flesh of St. Louis, in charge of the London office, and Charles T. Neal of Omaha, in charge of affairs at Hamburg, Germany, will undoubtedly continue with the grain corporation. As the activities in foreign countries terminate, they will resume their work in the United States.

The personnel of the grain corporation is as follows: Board of directors: Herbert Hoover, chairman; Watson S. Moore, Gates W. McGarrah, Julius H. Barnes, Frank G. Crowell, Darwin P. Kingsley and J. W. Shorthill.

Officers: Julius H. Barnes, president; Frank G. Crowell, vice-president; Watson S. Moore, secretary; Gates W. McGarrah, treasurer; Edwin P. Shattuck, chief counsel; second vice-presidents, M. H. Houser of Portland, C. B. Fox of New Orleans, H. D. Irwin of Philadelphia, P. H. Ginder of Duluth, Frank L. Carey of Minneapolis, George S. Jackson of Baltimore, Howard B. Jackson of Chicago, Charles Kennedy of Buffalo, W. A. Starr of San Francisco, D. F. Piazzek of Kansas City, and E. F. Newing of Galveston.

# Canning Inspection on the Pacific Coast

## Official of the National Association Explains the Methods and Results of the New System

*By Harry M. Miller*

THE extension of the inspection system of the National Canners' Association to the Pacific Coast among the fruit and vegetable canners has proceeded along somewhat different lines from the operations in the east, but the results will undoubtedly set a standard for the entire country to follow.

Southern California, with its great number of canneries, gave the opportunity for an experiment, the conclusions resulting in a revolution of the industry of far reaching effects, putting the canning industry far ahead and above many of the lines of food preparation and packing.

The splendid results to the industry have been the result of a most rigid inspection by the Association and the perfect co-ordination on the part of the packers. The combination has resulted in a high standard of goods for which the packers receive a better price and the consciousness that he is putting up goods that the consumers will not only appreciate, but talk about.

### A Year Old

The National Canners' Association, a year ago when they had a call from the packers of Southern California to extend the Association's inspection system to the Coast, opened an office in Los Angeles for the purpose of directing the program, and on looking back over the first year's work the results are highly satisfactory. About 90 per cent of the fruit and vegetable packers of Southern California are now enrolled in the Fruit and Vegetable Canners' Association of Southern California, which is the local branch of the National Canners' Association. A year ago there were only twenty-one factories under inspection, but by persistent and diligent work one after another saw the value of the inspection, with the result that when the year ended forty-seven canneries in Southern California, with a combined capacity of about five million cases, had signed up for the inspection, with the result that the goods from Southern California, while always high grade, have been greatly improved.

Commencing with a small laboratory in the San Fernando Building, it has just been enlarged to the extent that today it is the most complete and extensive food laboratory of any in Southern California.

When the canning season started in full swing, nine inspectors, all trained and perfectly trustworthy, were started out, using automobiles to travel between plants. It was their duty to examine the fruit or vegetables arriving in the plants, rejecting all of inferior quality, whether it was because of being over-ripe, in bad condition, or whatever the cause. It was also their duty to see that the plants were kept in a sanitary condition and perfectly clean, making daily reports to the director of inspection, who at all times knew the physical condition of the plants under his jurisdiction. These inspectors had a given territory and the managements of the canneries never knew at what moment an inspector might visit their place. It can be said to the credit of all the packers that they co-operated with the Association fully. The inspectors would daily collect samples of the pack, turning them in or sending them by express or parcel post to the laboratory. An average day's run for an inspector was a hundred miles and oftentimes the same cannery was visited two and three times, hence no packer was immune from scrutiny after an inspector had left his place on an early morning visit.

### No Orders Given

Inspectors did not give orders or instructions to the packers except in cases where they thought the plant needed cleaning. It was not within their province to be "bossy" and the canners received their suggestions willingly.

Besides the inspectors constantly visiting the plants, the director of inspection spent fully fifteen days of each month traveling around, seeing this plant or that one, studying the details which are annoying and expensive in large factories, with the result that such confidence has been established in the value of the enterprise that it may be looked upon as an established institution in the industry.

In the laboratory five chemists were constantly employed at high speed during the canning season, and 3,175 samples were examined and the canners advised as to the results they were obtaining. During the season three and one-half millions of cases of fruit and vegetables were packed under the inspection and the total cost to the packers for this splendid work amounted to only about $28,000, this amount including the cost of laboratory, automobiles, and all things necessary for the maintenance of the inspection.

### Cost Is Small

The cost incurred is insignificant compared with the results to the canners. Heretofore, the majority were doing things by guess, some using the same methods only on a larger scale than their mothers did in canning the winter's supply for home consumption on the farm. It is a fact that no member of the Association ran foul of any of the federal authorities, nor did a single member lose a case of goods when a car reached its destination. The federal authorities early appreciated the splendid work of the Association and observed the workings of the system in great detail with approval. The Association figures a higher standard than those set either by the federal or state authorities.

Another stride forward in the good work accomplished is that heretofore the canners in packing tomatoes placed anywhere from ten to twenty ounces of solid tomatoes in each standard can. Already a standard has been set and all such cans must now contain a full twenty ounces, otherwise no certificates are given. The same holds true for peaches and apricots, and all cans must be filled full of the product.

The certificates of inspection issued on goods packed in accordance with the stringent rules of the Association has become firmly established with the trade, as it is known that the canner receives no certificates unless the goods are absolutely up to standard. When that fact be-

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# DR. BARNARD'S VIEWS OF THE FOOD FIELD

## Do Middlemen Boost Prices?

IS THE middleman economically undesirable?

Floods of bills intended to eliminate the middleman block the wheels of legislation. It may be that in some of them will be found at least a partial solution to the problem of the distribution of food, but it is far more probable that the crude, ill-advised, amateurish attempts to lower the cost of living by eliminating the middleman will, as they ought to, die in committee.

Since the United States Food Administration discontinued its control the press of the country has fairly revelled in unwarranted attacks upon the middleman, and absurd stories of the destruction of food stuffs to boost markets are in circulation. Sensational tales of market corners are being printed. The public is led to believe that millions of eggs are held in cold storage for the purpose of boosting prices. As a result of this almost nation-wide agitation investigations of the cost of food have been made in Pittsburgh, New York, Philadelphia, Providence, Cleveland, Detroit and Indianapolis and many other cities, particularly in the East.

The beginning of these investigations was given wide publicity, but the results were barely mentioned. In no case was there revealed any evidence of canners' combinations or manipulated markets. The investigators found that the high values of food stuffs were due entirely to natural causes. At the present time, as the commission men point out, three staple commodities, milk, butter and flour, have a higher market value than they have ever had before. The cause for the high prices of these products is the abnormal export demand due to the European war, the suspension of importations, car shortage and the scarcity of labor, coupled with the government's adventure in price fixing. It ought not to require a master's mind to understand that when foreign countries are willing to pay almost any price to get food that consumers at home bidding against each other for food will lift prices to almost impossible heights.

In former years when our crops have been short we have brought ship loads of potatoes from Ireland and Scotland. Hundreds of carloads of foreign onions are sold on the New York market in normal years. If it were not for the conditions growing out of the war we would today be importing cabbage from Holland as we did a few years ago when the supply was short here.

These are some of the reasons why food prices are high, and the middleman has had almost nothing to do with fixing them. He may be unnecessary. A way may be found by which the products of the farm may be delivered more directly to the consumer than through his hands. Legislation may be enacted to prevent abuses which now exist to stop dishonest practices which occasionally creep into the commission business as they do into every other business; to simplify distribution methods; to prevent long delays and excessive spoilage; to do away with glutted markets and to stimulate the constant and even receipt of food stuffs.

All such legislation will be welcomed by the commission men just as the investigations which have put him in a more favorable light before the consumer have been welcomed.

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Germs which grow in food and cause illness grow very rapidly, particularly if the food is a little warm, and are not destroyed unless the food is well cooked before serving. Simply "warming up" is not enough.

## Food Prices Will Continue High

WE ALL long for cheaper food. The ten-cent loaf, five-cent eggs and fifty-cent butter were not unpopular during the war. We expected to pay high prices for food then, but with the war over and peace in sight, a rapid decline in the price of suitable foods is demanded by the consumer.

Unfortunately conditions in Europe and on the farm do not justify the belief that there will be any immediate decline in food prices. The newspapers are quick to emphasize price fluctuations and to hail a drop in the price of eggs or milk as an evidence that the decline is already here. Local declines or even temporary declines due to temporary overproduction must not be taken as evidence that food will soon be cheaper. The probability is that every decline will be followed by an increase in price.

If the newspapers lay too much stress on price declines as an evidence of a weakening food market the retailers will not follow their usual plan of placing future orders. Wholesalers finding no outlet will not place business with the canners and brokers, and canners, seeing no demand for the coming season's pack, will refuse to assume the entire burden and will diminish their acreage and reduce the production.

With wheat selling at a guaranteed price which assures the farmer a splendid profit; with corn very high today and with hogs selling at the highest price ever known, the farmer will naturally have little interest in his garden crops of fruits and vegetables. Why should he grow tomatoes when he can make as much money in corn and hogs with far less effort? Why should he grow sweet corn for the canner when field corn makes him a better profit with less work? In the eastern states, which pack most of the canned tomatoes, growers are refusing to sign contracts for acreage except at prices which are much higher than the canner can afford to pay.

When the canning season opens the 1918 pack will be out of the way. The grocers' shelves will be clean, the carry-over will be light on nearly every line and negligible on some of the most important staples.

With higher prices at the farm no decrease in the cost of production at the factory and a greatly reduced acreage, how can the customer expect to buy cheaper canned goods another year? The natural law of supply and demand has always governed the manufacture and distribution of food products. Even when the rules of the Food Administration were in force the old law kept on working. In the future it will continue to establish prices.

Every indication now is that all food stuffs will continue on a high price level and that canned goods instead of selling below the cost of production will reach higher prices this coming year than during the war period.

## Individual Food Needs

"ONE man's meat is another man's poison" is a trite way of saying that all men cannot live on the same kind of food. Food requirements are determined by age, size, occupation, climate and individuality. The average family table and usual eating practices do not consider these limiting factors as they should. Every member of the family except the baby is served from the same dishes and the size of the helping is regulated more by the generosity of the server than the needs of the eater.

If the cook lacks interest she prepares the things that take the least trouble. If the father is fond of meat, the rest of the family gets meat also; if, on the other hand, mother is a vegetarian it is possible that the children follow her dietetic fad. Fortunately the extras on the table usually make up the deficiencies in ill-chosen principal dishes. The old-fashioned American plan hotel dining room has given way to the a la carte method by which the diner selects the things he likes and needs instead of eating what may be set before him. There are good reasons why the a la carte plan should be adopted in the family, and the most important is the opportunity to feed individual needs. Meat for hard-working father, a vegetarian diet for mother who has found meat unnecessary, carefully chosen simple foods for the very little children who should not have much meat, but who would not be well fed on a starchy diet, and for the vigorous, growing children even more food, weight for weight, than for the elders and such a variety that every cell in their developing body is fairly fed. These are reasonable rules that fit normal needs.

If the children get hungry between meals feed them bread and butter sandwiches. If they aren't doing as well at school as they should, send them along with substantial lunches in their pockets; give them the freedom of the fruit basket; discourage over-indulgence in candies, but don't forget that sugar is good food.

Remember that the child's start in life depends largely upon proper food and that underfeeding is more often the cause of a breakdown during school life than overstudy.

## Cash and Carry

The cash and carry plan of selling groceries, although strongly advocated by the Food Administration in the interest of less labor at the store and saving in the cost of food, has not proved popular with most customers.

Probably most housewives prefer service to economy. There are too many customers who say, "I want the best and don't care what it costs" to make the cash and carry plan generally successful. The service store which furnishes delivery apparently gathers more trade and produces better results for the buyer and the seller than any other plan so far devised.

## Private Label Goods

CANNED goods go to market under many styles of labels. The label is supposed to mean something and if it does not tell the consumer what he is entitled to know about the size and quality and amount of the contents of the can he ought at least to be able to judge somewhat of the character of the goods by noting the name of the packer or jobber. Many successful packers value above all else the reputation years of honest effort has earned for the name of their house. To the fortunate ones who have learned that the label "Backed by John Smith" is a synonym for quality, no other argument is necessary to sell his goods. Hundreds of small canners who have not the output or capital necessary to establish a reputation among consumers sell their goods unlabeled to brokers and wholesalers who send them out under their own label. These goods are known as private label goods. If the jobber is careful in selecting them he may be able to gather under his brand the packs of many different packers all of which meet the requirement of quality.

The use of the private label, while it is of decided value to the conscientious jobbing house or grocer, makes it possible to dispose of inferior stock under brands and names which are without significance and which give the consumer no clue to the origin of the product.

It has often been suggested that the pure food laws should require all food stuffs to bear the name of the producer, in order that information concerning the goods which the consumer is entitled to have may be available for him. The only objection to such legislation is to be found in the argument that the middleman, whether he be wholesaler or retailer, has also the right to place his name upon his goods and to send them to the consumer backed by an enviable reputation for high quality.

The rights of the consumer and distributor may, I believe, both be met by requiring all food stuffs to show the name of the producer and at the same time allowing the use of the private label whenever the jobber or retailer wishes to place his personal guarantee back of the goods he sells.

To the consumer I have but this suggestion—never buy food stuffs which do not show either the name of the producer or the distributor. Any product which does not bear any evidence of its origin and which goes to market under some general brand is probably of inferior quality, but on the contrary, goods which are fully labeled may be purchased in the belief that they are so good that they will be a credit to the man who packed or sold them.

## The Farmers Pay

The statement that the farmer receives thirty-five cents out of every dollar paid for food by the consumer is too sweeping. While it may be true in a few instances, it does not apply to all or most of the farmers' products. For instance, in Minnesota the farmer who raises lettuce and ships it in to Minneapolis, ten miles away, received only 33 1-3 per cent of the retail price, but in butter, figured in butterfat, the farmer received 77 cents on the dollar; for live stock he received 58 cents on the dollar, and for his wheat 90 cents on the dollar.

# FOOD NEWS FROM WASHINGTON

## Send Live Stock Commissioner to South America

THE Bureau of Markets, United States Department of Agriculture, has perfected plans to investigate in South America the possibilities for pure-bred stock from the United States, and to stimulate interest in importations from this country. David Harrell, of Austin, Texas, who until recently was representative of the War Trade Board in Spain, has been appointed as live stock commissioner to perform this work, and he plans to sail about the middle of June. He will be accompanied by H. P. Morgan, of the Bureau of Markets, as an assistant.

Until five years ago, Mr. Harrell has been engaged for many years in the live stock business in Texas and Mexico. For some time he was an importer and breeder of pure-bred cattle, hogs and angora goats, and his stock won many first prizes in live stock shows of national importance. He was for several years president of the Texas Shorthorn Breeders' Association and did important trade-promotion work in Mexico for both the Texas and national associations. Until his departure for Spain in 1917, Mr. Harrell was a governor of the University of Texas.

## Trade Commission Council Resigns

JOHN WALSH, of Wisconsin, first chief counsel of the Federal Trade Commission, has resigned that post to resume the private practice of law in Washington. His resignation took effect April 15th.

In a statement Mr. Walsh assigns as his reason for disconnecting himself with the work of the Commission the inability longer to make the "pecuniary sacrifice incident to government service."

Mr. Walsh, prior to his connection with the Commission, was one of the leading figures of the Wisconsin bar, having been actively engaged in law practice in that, his native state, for more than fifteen years. His home is at Washburn, Wis. Mr. Walsh, a delegate to the Democratic national convention in Baltimore in 1912, had the distinction of seconding the nomination of Woodrow Wilson for the presidency.

A resolution was adopted unanimously by the Commission expressing its deep regret at his resignation.

## Yield to Commission

THE Nulomoline Company, N. Y. City, manufacturers of invert sugar, has agreed to an order by the Federal Trade Commission requiring it to cease and desist from:

Claiming to have exclusive right to the manufacture of invert sugar; claiming to have exclusive monopoly of the manufacture of invert sugar; making threats of patent infringement suits in bad faith against concerns manufacturing or contemplating the manufacture of invert sugar; and from advertising or representing that in the manufacture of its Nulomoline no acids or chemicals are used and that the sugar contained in Nulomoline is not inverted by any of the usual processes, or suggesting or intimating that other invert sugars contain dangerous acids.

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Upon the invitation of the Secretary of Agriculture, a number of farmers and representatives of agricultural colleges of various states met with members of the Department of Agriculture, April 17, 18 and 19, to consider projects and plans to be followed in the study of farm organization.

## Food Administration Urges Sugar Buying

THE Food Administration urges upon dealers in refined sugar the desirability of their replenishing their stocks now to ensure against the possibility of local shortages, particularly in the eastern part of the country, later on when the demand comes for canning. This demand may be further accentuated by the expected increase in consumption of sugar and its products in candy and sweet drinks as a result of prohibition.

The Food Administration is particularly eager that a full supply of sugar should become available to home canners for preserving this summer's fruits. Last season on account of restrictions and difficulties in transportation, there was an unequal distribution of sugar which led to local shortages. This season the Food Administration fears that dealers may bring about the same undesirable situation unless they replenish their stocks now.

The foreign demand for sugar this year is estimated at 650,000 tons, as compared with 150,000 last year, and a normal of 50,000. Of this year's European requirements 550,000 tons have already been contracted for. This sugar will go forward in the first nine or ten months of the year instead of being spread over twelve. Ships have already been allocated for 60 per cent of the amount. The foreign buyers are already taking steps to insure their getting their sugar, and if the American local buyers do not exercise similar precautions and continue to refrain from buying they will find themselves unable to secure the sugar they will require later on during the large consuming months from June 1 to October 1, since the refiners' ability to deliver is limited by their daily refining capacity, which will be taken to meet their foreign contracts.

There is not, in the opinion of the Sugar Equalization Board officials, any actual shortage of sugar now and no prospect of one, at least before next fall, but on the other hand, there is no prospect of any material change in price that would justify merchants in delaying their buying orders. The price of sugar today in the United States is lower than that in any European country except Denmark, where there is a special situation. Against our ten cents per pound, prices in Europe vary from twelve to forty-five cents.

## Food Officials Call Public Hearing

A PUBLIC hearing will be held by the officials in charge of the enforcement of the Federal Food and Drugs Act on Monday, May 19, 1919, at 10 a. m. in the Bureau of Chemistry, United States Department of Agriculture, Washington, D. C., to discuss a proposed revision of the rules and regulations for the enforcement of that Act. All interested persons are invited to attend and present their views either orally or in writing.

Tentative revised rules and regulations have been prepared by the United States Department of Agriculture, which will form a basis for discussion. Views of the trade and other persons interested are desired in reference, especially to the proposed changes, but recommendations for additional amendments or changes will be considered.

No drastic changes in the present regulations are contemplated, say the officials. Most of the proposed changes in wording are for the purpose of clarifying or making more specific regulations now in effect. Some minor modifications in the rulings have been made.

Copies of the tentative rules and regulations may be obtained by interested parties upon application to the Bureau of Chemistry, United States Department of Agriculture, Washington, D. C. Recommendations or suggestions may be made in writing on or before the date of the hearing.

Oliver Wendell Holmes once said: "I find the great thing in this world is not so much where we stand as in what direction we are moving." The food manufacturer who knows the direction his business is taking and whose chief concern is given to steering it right needs no food official to control him.

## Billion-Bushel Wheat Crop Forecast

WITH a wheat crop of over a billion bushels in prospect in the United States this season—the greatest crop the country has ever produced—the need for efforts by farmers and elevator companies to market and store the grain with the least possible loss and congestion of traffic is impressed by the Bureau of Markets of the United States Department of Agriculture. In calling attention to this great marketing problem the department says that every possible measure should be taken to insure the safe storage and handling of this enormous crop.

Last year, with a crop of about 900,000,000 bushels, the rushing of the grain to market immediately after harvest caused a congestion all the way from the terminal markets to the farm. The wheat "backed up" after the terminal elevators were full and congested the railroads and all country elevators. The result was that embargoes were placed on further shipments until the terminals could be cleared. Fortunately, the winter was an open one, or the loss due to lack of proper storage would have been heavy.

Attention is called by the Bureau of Markets to the situation that prevailed in North Dakota in the winter of 1915-16, following a crop in that state of 150,000,000 bushels. Owing to a congestion of elevators at country stations, due to the inability of the railroads to carry the wheat away as rapidly as the farmers hauled it in, platforms were built and hundreds of thousands of bushels of wheat were piled up in the open. In addition, great quantities of wheat were stored in improvised bins.

One result of this condition was that during the following summer many farmers provided themselves with galvanized iron storage tanks on their farms.

In Washington and Oregon last year and in 1917 many farmers built portable wooden storage bins to hold about 1,000 bushels each.

In some parts of the country last summer, especially in Indiana, for example, stacking was a feature of crop handling where it never had been before. Stacking is a partial solution to the grain congestion problem which every farmer can apply. Furthermore, he is likely to be a gainer by the practice, for wheat that sweats in the stack, except during an unusually dry harvest season, will be of better quality than if thrashed from the shock. If stacked at once after harvest, weather permitting, the farmer may then thrash and market the wheat at his convenience. There is the further advantage that the wheat will not deteriorate should rains come as it would in the shock. As a marketing proposition stacking as soon as the wheat has become thoroughly dry after harvest is "good business," particularly with a billion bushel crop and congested storage facilities in sight.

Farmers should consider the question of providing themselves with storage facilities. Provision may be made to store wheat in buildings already constructed or farm granaries and portable bins may be provided. The United States Department of Agriculture has specifications for a portable farm granary, issued as Markets Document No. 11.

## Label Fruits and Vegetables

FRUITS and vegetables in package form should be labeled with the quantity of contents when shipped within the jurisdiction of the Federal Food and Drugs Act, say the officials of the Bureau of Chemistry, United States Department of Agriculture, in charge of the enforcement of that law.

The requirements of the net weight amendment to the Federal Food and Drugs Act in its application to the labeling of fruits and vegetables in package form have been widely distributed among shippers and other interested parties. Shippers of fruits and vegetables who fail to comply with the requirements of the law are liable to prosecution in the Federal courts, say the officials. Food inspectors have been instructed to watch interstate shipments of fruits and vegetables during this season to see that the packages are labeled with the quantity of contents in accordance with the requirements of the law.

Complete rulings regarding the labeling of the quantity of contents of fruits and vegetables coming within the jurisdiction of the Federal Food and Drugs Act, and regarding certain exemptions, which have been published in Service and Regulatory Announcement, No. 21, will be mailed upon application to the Bureau of Chemistry, United States Department of Agriculture, Washington, D. C.

## Margarine

(Continued from page 10)

with the statement that they want only to protect the public against deception and fraud? The taxing of the retailer for selling margarine as such is obviously an attempt to keep margarine out of the legitimate market. If a high enough tax could be imposed there is not the least doubt that the small grocery store would be compelled to cease selling margarines for what they are and then the public would be compelled to buy butter, good, bad and indifferent at any price dictated by the dairy organizations or go without a spread on the bread.

Given such a condition it cannot be denied that as the price of butter soared because of the excess of demand over supply the unscrupulous dealer would have a bigger inducement to palm off colored oleomargarine for butter.

In addition to the federal taxes on margarines there are eight states in the Union which now have laws placing an extra tax of from $2 to $100 a year on dealers or hotels or restaurants where margarine is sold or served. In most of these cases the manufacturer and wholesaler of margarine must pay an additional tax in the form of a license fee also.

Are these old laws that were passed before science declared margarine to be a wholesome food product and before government officials had pronounced it free from impurities and corruption?

No, in most cases they are laws of comparatively recent passage and attempts were made in the legislative sessions this year to pass more of them.

An interesting fight was precipitated in Oregon this year when the dairy interests proposed a new anti-margarine law which should place a tax in the form of a license fee of $1,000 on manufacturers of margarine, $500 on wholesalers, $100 on retailers and $50 on hotels. The bill was not passed as proposed. It was amended and passed so that as the law now stands the manufacturer will have to pay $500 for a license, the wholesaler $250 and the boarding house keeper who serves margarine $5.

As reported in the Portland, Oregon, Journal of February 18, 1919, Senator Pierce, who introduced the bill, said:

> "This is a bill the dairymen want. It will prevent the false advertising of oleo-margarine."

He is reported to have admitted that oleo-margarine had "some food value," but said that if some measure to shut this product from the state was not passed the dairy industry was doomed.

The laboring element of the state, represented by their leaders, protested against the passage of the bill, in fact the reports carried in all of the papers seem to indicate that practically all interests were against the bill except the organized dairy interest.

The Portland Oregonian commented upon the bill in an editorial, saying:

> "To interfere in the market competition between two wholesome products by legislative enactment is generally bad principle. Clearly the Pierce bill to license the sale of oleo-margarine falls within that category. * * * Plainly the bill is not intended as a revenue measure, but is designed to prevent so far as possible, the sale and consumption of oleomargarine."

In commenting on this fight, the Oregon Voter said:

> "Numerous members of the House came to the editor of The Voter before and after the roll calls on the Oleo Bill and confided to him that they were ashamed of their votes for the bill, but so clamorous were the dairymen in their home counties that they felt that they had to wave their personal convictions and vote for the bill. The confidence these heavy-hearted members reposed in us we will not betray as to names—but such confidences were many, frequent, apologetic and abject."

### In Other States

A similar fight has been conducted in almost every state in the union and the dairy people still maintain that their only interest is to protect the public from the fraudulent sale of oleo-margarine.

When a bill similar to the above was introduced in the legislature of Minnesota this year the Dairy Record of St. Paul, called attention to the evils of this bill in an editorial entitled "Killing Good Will." It said in part:

> "It seems to us that the dairymen might well consider if a high license fee like this on every small corner grocery store would really be a good thing for their interests. If the bill becomes a law the dairy industry will, of course, be blamed for imposing this tax, which, the small retailer says, will make it impossible for him to sell oleomargarine and force his customers to go to the big stores. Naturally he would then be not much of a friend to butter and would not be very enthusiastic about dairy products."

Twenty-two states in the Union prohibit the sale of colored oleomargarine, but West Virginia went the limit when it passed a law providing that if oleomargarine is sold it must be colored pink.

### Colored Product

In view of the fact that so many of the states have passed laws prohibiting the sale of margarines when colored (although there are no restrictions to coloring butter), it is not strange that more oleomargarine that is colored is not sold and yet the dairy interests have repeatedly argued that the fact that so little of the colored margarine is sold and so much of the white product is disposed of that this indicates that the purchasers of this product do not want the colored product and therefore it would be a hardship on the people generally if the Federal tax of 10 cents on colored oleomargarine was reduced and the tax on all placed at 2 cents.

Verily, the reasoning powers of the leaders in the Dairy legislative fights against margarines are wonderful and awe inspiring. It is almost impossible to formulate any kind of a law that will obstruct the honest sale of margarine that the dairy people cannot find an argument to show that this law is bound to prove a good thing for their industry and for the people in general. They shift ground with every fight and the whole history of the anti-margarine legislation is replete with inconsistencies and dishonest insinuations.

One of their hardest worked arguments is that margarines are fraudulently sold as butter. If this is true, what are our food control officials doing about it? Why is it that there are so few arrests of men who sell margarine as butter? It can't be said that the food control officials are in favor of margarine against butter because very many of these men came from the ranks of dairymen and it is a well known fact that many of them favor butter if they favor either side of the controversy.

If the elimination of fraud is the chief care of the dairymen, why is it that there are so many arrests every year of dairymen who violate the pure food laws by adulterating milk? Why are so many of the dairymen permitted to sell butter that has been neutralized before it could be sold? Why is it that the public's taste for good butter has been almost entirely destroyed because so little good butter is on the market?

Surely there is much reason for the dairymen to pause and think about those who are leading them and where. It is time now while the people of the world are crying for more food than can be had for the dairy interests to start a housecleaning in their own home in recognition of the fact that a business cannot thrive alone on opposition by legislation to a competitive business. Butter must be purified and made good. Before the dairy interests can get back to a firm business footing and capture the markets of this country and the world as a whole the confidence of the public in America's dairy products must be re-established and maintained.

But it is reported that the dairy interests are now engaged in organizing an even stronger legislative club in each state of the union with the purpose of keeping card records of every man who would be elected to the legislature and then organizing the opposition or support for that man according to how he stands on the butter-margarine question. I cannot say at this time just how true this report is but if it is true it is evidence that the present leaders of the dairy industry are still blindly adhering to the political idea and ignoring the first principles of modern business.

## New Packing Plant

Organization of the Virden Packing Company, with a capital stock of $5,000,000, which will conduct the largest stock yards west of Kansas City, and one of the biggest packing plants for fruits, vegetables, meats and other products in the United States, is reported from California. The company is headed by Charles E. Virden, president of the Chamber of Commerce of Sacramento.

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The commission which recently returned from Europe after a study of agricultural conditions there declares its belief that for the staple food and fiber products grown in the United States "there will prevail a strong demand and that prices will probably continue steady and at a high level."

## Wilbur F. Cannon Returns to Office as Pure Food Commissioner

WILBUR F. CANNON, who served as the first Pure Food Commissioner of the State of Colorado, has been reappointed to his old position after an absence from that office of several years. His reappointment will bring back to the memory of many food control officials the days when food control was new and when the exercise of the duties of that office was fraught with considerable personal danger as well as the less dangerous criticisms and verbal denunciations.

Wilbur F. Cannon

This was particularly true of the State of Colorado back in the old days when there were still many of the old and considerably vigorous type of business men who resented the interference by the state in what they termed "their own business," and the inspection and control of the production and marketing of food products was looked upon as an unwarranted interference. The rule of "Let the buyer beware," was a sacred one to many food producers as well as horse traders.

Mr. Cannon was first appointed pure food commissioner at the request of prominent members of Denver woman's clubs in 1907. He was reappointed in 1909. He was the organizer of the state pure food department, and bore the hard work of putting new and untried legislation into effect.

He met with opposition from every source, but accomplished results with a minimum disturbance of business conditions. His life was threatened on several occasions, and a libel suit for damages confronted him every morning at breakfast.

After retiring from the state pure food department in 1911, he was associated with the Federal government pure food work as a member of a committee to bring about uniformity between the government and the various states in the enforcement of pure food laws.

He visited practically all the state departments of food inspection in the country, and became one of the best known men in the pure food control work in the United States. He gained distinction as a writer and lecturer on pure food topics.

Mr. Cannon was a member of the state legislature for seven sessions, and was the father of the pure food law passed in 1907.

## The Day For Fraudulent Patent Medicines Has Passed

WOULD our families suffer if the $200,000,000 now spent for patent and proprietary medicines went for better food, better homes, better education? Would business be injured if the money spent in creating an artificial demand for cure-alls and complexion creams was used to turn Jersey swamps into farmlands or put paint on our houses instead of our faces? Of course not. More than that we would all be better off—for if there is any more costly, less beneficial habit than drinking patent medicines I don't know what it is unless it is drinking whisky—and when the truth is known there isn't such a great deal of difference. The whisky may not taste as badly—or rather as nasty, but the tonic effect of both is due to alcohol and it is alcohol that creates the desire for a second dose or drink. Of course all patent medicines aren't alcoholic—some of them are little stronger than ditch water—and hundreds of the most widely advertised proprietary remedies are simple household chemicals such as borax, cooking soda, epsom salts and sulphur.

It may not be especially harmful to the skin to bathe it in epsom salts solution or to dust it with sulphur, but when under some disguising name these simple chemicals that are worth a few cents a pound are sold for seventy-five cents an ounce, someone is wasting good money.

When Dr. Goldwater was Health Commissioner of New York he came to the very sane conclusion that if millions were spent annually for patent medicines by the people whose health he was guarding even more millions were being spent in repairing their evil effect. And so he judged the patent medicine habit to be a very real influence, not for better health but for bad health. Dr. Goldwater did not attempt to put the patent medicine manufacturers out of business, he did not even try to stop the sale of their pills and bottles, he only said that every patent and proprietary preparation should be registered, with the name and address of the maker, importer or distributor, and a claim of the healing effect and the name of each active ingredient filed with the Department. The regulation did not require the quantity of each ingredient to be given but it did require the text of every advertisement and label to be filed with a true sample of the preparation.

In other words the Health Department held that if it is necessary for a physician to prepare for his work by long years of study and qualify by an examination, if every drug clerk must likewise fit himself by special study and pass a licensing board before he can compound drugs or hand out prescriptions, the manufacture of patent medicines and nostrums who may have no knowledge whatever of therapeutics or chemistry, should at least be required to submit his formulas to the guardians of the public health before he sold them. Surely that was a reasonable request. No secrets were to be made public—no formulas were to be disclosed. If Peters thought his Purple Pills would raise the dead he was not denied the right to cherish his delusions, all that was asked was that the health authorities be taken into the confidence of the self appointed, license free manufacturer.

What was the outcome? The courts found that the patent medicine man had more rights than the invalid and so the Health Department lost in its initial attempt to protect the public. But, in spite of the verdict, anybody who can see an inch before his nose sees an end to fraudulent patent medicines and quack advertisers in the very near future.

And the harder the kick now the quicker the end will come. All we want is facts. We are intelligent, we have good sense—we know that if the patent medicine man won't tell the Health Commissioner what he has in his bottle it must be because it's mighty poor stuff. By the way —over in Japan no one can make or sell a medicine until the government has tested it, and approved its composition. That may be paternalism —but anyway it's sound public policy.

## Hoover's Views as to Roumania, Poland Serbia and Czecho-Slovakia

HERBERT HOOVER, Director General of the American Relief Administration, has called upon the governments of Roumania, Poland, Serbia and of Czecho-Slovakia to establish their own machinery for the rehabilitation of their economic life, pointing out to them that the relief work at present being carried on by the American Relief Administration is only temporary and designed only to carry them over to the next harvest.

"It is impossible," says Mr. Hoover, "to conceive that relief of this character can be carried on indefinitely, not only from the press of world finance, but also from the transcendent necessity to return the population to productive labor from social, economic and political points of view."

Mr. Hoover's plan is that the governments of Roumania, Poland, Serbia and Czecho-Slovakia should each establish an official commission or corporation composed of their leading commercial men. These commissions with branch offices in other countries should charter their own shipping for the movement of food supplies to their respective countries and should also provide the shipping for the exporting of such products as their countries are able to manufacture.

The commissions, Mr. Hoover points out, with the advances being provided by the United States Government, could purchase food supplies in the United States, transport these food supplies into their own countries and sell them to their populations; with the funds thus secured the commissions can purchase various commodities in their own countries for export. These commodities, then sold in the markets of France, England, the United States and elsewhere, will replenish the funds of the commissions. Ultimately, with the growth of export productivity, the commissions should become self-supporting.

At first it will no doubt be necessary for the commissions to limit themselves to the purchase of food stuffs and only those most critically essential raw materials. Mr. Hoover emphasizes the fact that these countries are not entirely dependent on the United States for their food supplies. In Spain, France, England and other countries there are food markets. During the life of these commissions private merchant firms in the respective countries should be encouraged to import and export commodities and to create their own private credits in countries abroad for these purchases. In this way, Mr. Hoover thinks that the commissions could retire in six or eight months in favor of normal commerce, which would be the third and final stage of economic recovery.

During the period while the governments of Roumania, Poland, Serbia and Czecho-Slovakia are establishing these commissions, it is Mr. Hoover's plan that the American Relief Administration should function in the relief of these countries as at present.

## Contracts Enforceable

A Delaware court has just awarded damages to the Liberty Brand Canning Company against Joseph Denby, a tomato farmer, for breach of contract.

The Liberty company brought suit against Denby on a contract whereby he agreed to deliver to them the products of four acres of tomatoes. Denby failed to make deliveries as per contract and disposed of 1,100 baskets of tomatoes to others.

The Liberty company sued for the difference in the contract price, which was 25 cents a basket, and the market price at which Denby was said to have sold, according to experts brought into court, 75.5 cents a basket.

Denby admitted the facts, but his lawyers claimed he was already under contract with Howells, his landlord, to leave all contracting for disposal of the products to the landlord. The court refused to allow this evidence on the ground that Denby was legally entitled to make a contract with the Liberty or any other company at the time.

Pay your debt to Pershing's men. Buy bonds again and again.

The worst wheel of the cart makes the most noise.—Poor Richard.

# Armour and Company NOT in the Retail Grocery Business

CERTAIN jobbing salesmen are circulating reports to the effect that Armour and Company control certain retail grocery stores or are planning to enter into the retail grocery business.

***These reports are utterly and absolutely false.*** We desire to brand them as such once and for all. ***Armour and Company do not control any retail grocery stores wholly or in part.*** Neither have we any affiliation or connection in any way whatsoever with any owners of any retail grocery stores. ***Armour and Company have no intention of engaging in the retail grocery business.***

Armour and Company distribute and sell a very limited number of food lines not directly produced from livestock. This is only the result of natural evolution. Our system of distribution and marketing must be maintained with the greatest possible efficiency. It is necessary, for reasons of economy, that it handle as great a volume at all seasons as possible.

This same distributive system enables us to carry staple foods to the people of this country with greater efficiency and at a cost that is low commensurate with the service. If our facilities are such that we have been able to serve the public more economically and efficiently than our competitors, then it is the retailer and consumer who benefit.

Armour and Company will continue to regard all retailers as our co-workers. By means of our refrigerator cars and our branch houses it will be our effort to continue to provide them with the finest foods of all kinds that we can select and prepare—under the quality mark of the OVAL LABEL.

**ARMOUR AND COMPANY**

CHICAGO

4132

## Iowa's New Laws

The following is a brief summary of the various changes in the Iowa food and dairy laws which were made by the 38th general assembly:

Amendment to the dairy law defines imitation evaporated milk, imitation ice cream, and requires that packages of these products bear the words "Imitation Ice Cream," or "Imitation Evaporated Milk," as the case may be, plainly stated on the label.

The definitions of milk and cheese are revised; the changes being in the wording only.

The minimum fee for violation of the dairy law is changed from $25.00 to $10.00.

The commissioner's authority for collecting dairy statistics is enlarged.

The use of the words butter, creamery and dairy, or the name or representation of any breed of dairy cattle, is prohibited on packages of substitutes for butter.

Renovated butter is defined and conditions under which it may be sold regulated.

Amendments to the food law give the commissioner authority to issue standards for foods, standards for which are not fixed by statutes. Such standards must conform with those issued by the Secretary of Agriculture of the United States.

The amendment also classes as misbranded any article which is sold in package or wrapped form with the name of the article not plainly stated on the package of wrapper.

The amendments to the dairy law became effective April 17th and the amendments to the food law effective April 24th. A modification of the Uniform Egg Law was also passed by the 38th general assembly and became effective April 3rd.

The following change has taken place in the personnel of the department: W. H. Harrison, former assistant chemist and bacteriologist, has been appointed deputy commissioner, succeeding Mr. F. W. Stephenson. Mr. Stephenson returned to his former position as inspector.

## Spring Fever—How to Feed It

DIETS should differ as the seasons change. Winter weather calls for heavy foods. The human furnace burns much fuel while fighting off cold and chill. As spring approaches the food should change. This isn't a matter of teaching or belief; it's a demand of Nature.

There may not be much reason for the use of spring tonics; the sulphur and molasses with which the small boy's blood was purified after a winter of overfeeding is no longer inflicted on him. But the longing for green things like spring onions and rhubarb pie is very real and wholly natural.

Heating foods are not necessary as warmer weather comes; fats should be replaced by proteins; the starches should also be diminished; coarse vegetables, greens dug from the fields are savory even if not nourishing; eggs are cheaper and satisfactory. The candy box should be left unfilled.

Spring is the time to get to the woods and open fields. Old Chaucer knew when to take his travelers a-pilgrimaging. Get away from town and accustomed tables. Put a cheese sandwich in your pocket and lunch alone with wintergreen leaves for your salad and buds of spruce, maple and wild cherry for savory condiments. Get out among the squirrels and revert. Spring fevers aren't dangerous. They are signs of abundant health. It isn't foolish to yearn for woods and the taste of long forgotten boyhood fancies—it's a saving grace. Red blood runs in your veins. You are slipping away from artificialities; you are natural again.

## Canning Inspection

(Continued from page 27)

came known the brokers evinced greater interest in the goods packed under inspection than the goods packed by non-members. A certificate of inspection on a case of goods now means a great deal to the broker and it means more to the wholesaler, who in turn can assure the retailer that the goods he is receiving are of the very best in the grade. The retailer in turn tells his trade what they are getting. Results have been so good that the majority of brokers will insist on inspected goods and the same is true of the wholesaler, for more than one big firm has announced its intention of only handling the goods that have the certificate of inspection on the case, from Southern California.

On account of the war and the great demand for foodstuffs last year there was a mad scramble of people to enter the lines that offered great profits, with the result that many entered the canning game with little or no experience. Had there been no inspection and had there been no National Canners' Association to turn to, many would have been ruined financially. That many were not ruined is due to the sound and wholesome advice and splendid co-operation of the Association. In fact, one might say that the schooling given many packers made real and enthusiastic packers of many who otherwise would have been indifferent ones.

A high standard and still higher standards was the constant aim of the Association, and so enthusiastically was the work carried on that the packers became imbued with the same enthusiasm, resulting in many of them striving to set a pace for all others to follow. Besides the higher standards that have been set, all packers have had the advantage and the co-operation of the Association to work out, not only every day problems, but the new ones, and to delve into research work, with the result that the coming season will see many packers putting up goods that heretofore have not been packed to any extent in the west.

Aside from the great value rendered the fruit and vegetable canners, the aid given the olive packers has been incalculable. Already the research department of the laboratory has worked out the best methods to be employed by them, setting a standard for them to attain to make the California olive more palatable and famous than ever before.

As the season advanced and the work of the Association broadened and became larger in scope, work of its achievement reached the ears of the bankers who were loaning hundreds of thousands of dollars on canned goods as collateral. More than one banker sought information as to the quality of goods packed by certain clients of the bank who were desirous of larger lines of credit. The packer of good goods had a clean bill of health, which meant a larger line of credit for the canner, and when the banker learned of the magnitude of the work of the Association that meant insurance on the canned goods, he loaned not only more readily but on larger lines, feeling more secure in his loans than ever before.

Since the inauguration of the work in California other states have adopted the system and soon all canned goods will bear certificates of inspection, truthfully certifying that the product was properly manufactured in a clean plant from a wholesome raw product and is of higher grade than specified in food laws.

Does the inspection pay?

Ask the packers under the inspection and he will tell you that this is the net result:

Better goods.
Higher standards.
No spoilage.
No condemnations.

Brokers and wholesalers buy inspected goods more readily.

Bankers are more willing to accept canned goods as collateral.

And last, but not least, a pleased consumer.

## Civil Service Examinations

An examination for position of refrigerator plant attendant in the Bureau of Animal Industry, United States Department of Agriculture, will be held by the Civil Service Commission June 3, 1919. The examination is for men only, and applicants must be at least 20 years of age and must have had at least four years' experience in the installation and operation of refrigeration machinery. Entrance salary, $1,200 a year. Those interested should write the Civil Service Commission, Washington, D. C., for Form 1800.

Examination for scientific assistant in marketing, for both men and women, on June 4 and 5, 1919. Vacancies in the Bureau of Markets, Department of Agriculture, for duty in Washington, D. C., and in the field, will be filled from this examination. Entrance salary usually ranges from $1,200 to $1,500 a year. Applicants should apply for Form 1312, stating the title of the examintation required, to the Civil Service Commission, Washington, D. C.

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House Bill No. 698 is to repeal the law forbidding the use of margarine, etc., in charitable and penal institutions.

House Bill No. 774 is supplementary to the weights and measures law.

**MAPLEINE**

***(Contains no Maple Sugar, Syrup nor Sap, but produces a taste like maple)***

The potential food value of appetizing flavors is appreciatively recognized by dietitians, physicians and progressive pure food executives and instinctively by the consuming public.

In United States and Canada, the two flavors preferred above all others in pastry cooking, in baking, in confectionery, ice creams and table syrups are vanilla and maple. If the source of vanilla flavoring should be restricted to vanilla beans, more than half of the people who like vanilla flavor could not enjoy it. The research laboratory supplied the deficiency by producing vanillin from oil of cloves.

Production of maple products from maple sap is unequal to the demand and is constantly diminishing from natural causes. The research laboratory supplies the deficiency by producing Mapleine from equally wholesome vegetable sources.

**MAPLEINE** not only furnishes an acceptable maple flavor for all purposes for which maple sap flavor is desired — and unobtainable — but has the added advantage of providing a savory flavoring for meats, sauces, gravies and a hundred dishes to which it gives *added food value* because of its savory flavor.

**MAPLEINE** is sold on its merits as a general flavoring, and in a form and under a label which prevents deception or misconception of the consumer.

**CRESCENT MANUFACTURING CO.**
**SEATTLE, WASH.**
(M-421)

17 Highest
Awards

FOR
PURITY

*A Medal-Winning Product*

*If you want the finest flavor, ask for*

**SAUER'S**
**PURE**
**FLAVORING EXTRACTS**

Made in Old Virginia, in the Old Virginia Way, with the same method and formulæ used by us for thirty-one years.

Vanilla, for instance, can be made practically over night, but Sauer's Vanilla requires more than a year from the time the beans are received until the finished product is turned out. This process, with the high-grade materials used, insures a Vanilla with the true, fine flavor and bouquet.

Quality has made Sauer's

***THE LARGEST SELLING BRAND***

in the U. S., seventeen highest awards at American and European Expositions for

***Purity, Strength and Fine Flavor***

THE C. F. SAUER COMPANY
RICHMOND, VIRGINIA

## Supreme Court Decisions

(Continued from page 24)

last resort, are repugnant to the interstate commerce clause of the Constitution of the United States (Art. 1, sec. 8) and to the due process and equal protection provisions of the fourteenth amendment, and especially are in conflict with the Federal Food and Drugs Act.

Upon the argument here the attack was centered upon the effect of Regulation 6, which, so far as pertinent, reads as follows: "Manufacturers of proprietary foods are required to state upon the label the names and percentages of the materials used, so far as is necessary to secure freedom from adulteration and misbranding: (1) In the case of syrups, the principal label shall state definitely, in conspicuous letters, the percentage of each ingredient, in the case of compounds, mixtures, imitations, or blends. When the name of the syrup includes the name of one or more of the ingredients, the preponderating ingredient shall be named first."

In reviewing the case the United States Supreme Court, in a lengthy opinion, held, in brief, that the Federal regulation referred to did not take from the state the police powers to compel the statement of the formula, even in the case of a proprietary article that contained no substance injurious to health, and that the Kansas law giving to the State Board of Health the power of decision as to when the formula should be stated on the label is not in conflict of the Federal regulation.

The court affirmed the decision of the Supreme Court of Kansas which in effect compels the Corn Products Refining Company to label its "Mary Jane Syrup" with the word "Compound" and to specifically state on the label the percentage of each ingredient entering into this product.

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## Only the Healthy Should Handle Food

FOOD handlers are in a class by themselves. In most of the states they cannot work in the factory where food is prepared, or in the shop from which it is sold, unless they are free from disease. The records of the recruiting stations show the venereal diseases to be very common, but, until it became necessary to protect our army, about the only attempt that was made to prevent the spread of venereal diseases and to isolate the carriers were those made by the food officials. The necessity for maintaining a high standard of health and morality in the service advanced health work, and especially the work of controlling venereal diseases in the states, more in a few months than up to that time had been accomplished in years.

At the present time 45 states require physicians to report all cases of venereal diseases. In 39 of these states these reports are made by number only. But in six states the name of the afflicted person is reported together with the occupation of the patient. These states are Colorado, Indiana, Maryland, New Jersey, Ohio and Vermont. It should be an easy matter to keep the venereal diseased out of the food plants in these states. In 34 of the states all cases must be quarantined.

The wonderful strides that have been made in regulating this disease the so-called black plague, have been made through the United States Public Health Service, working in cooperation with the State Departments of Health. Every food official who has an interest in the protection of the public health which goes beyond the nominal regulation of labels and the collection of license fees, should secure the cooperation of the health officials to the end that every diseased food handler leaves his work until cured.

**A** Calcium Phosphate

**C** Ammonium Phosphate

**I** Phosphoric

**D** Oxalic

Baking Powder Materials

Epsom Salts, U. S. P.

**Victor Chemical Works**

New York CHICAGO St. Louis

*LARGEST MANUFACTURERS*

47 Pounds of toothsome, tasty Pastry
IN ONE CAKE!
47
J. R. Jones' Sons & Co.

We had a piece of this cake and it tasted as good as it looks.

Concealed within it were 47 due bills issued by J. R. Jones' Sons & Company, whose business birthday the cake honored at a Dollar Day Dinner attended by 139 merchants of Kalamazoo.

To protect these due bills from the "dough," each one was wrapped with KVP Vegetable Parchment Paper into a tiny wad.

This is by no means the first time valuable merchandise has been intrusted to the protective folds of KVP Vegetable Parchment Paper—and it is quite impossible to think that we would be other than delighted to show the merits of KVP Vegetable Parchment and Waxed Paper to several new customers this month.

**KALAMAZOO VEGETABLE PARCHMENT COMPANY**
KALAMAZOO, MICHIGAN
*Makers of KVP Vegetable Parchment, Waxed and Bond Papers*

**Dehydrated Vegetables**

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
INCORPORATED
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U. S. A.

## Look Upon Sugar as a Sustaining Food

BOY scouts eat sugar on their hikes because it keeps them from being tired. They may buy candy because they have a sweet tooth, but the reason they have a sweet tooth is that Nature has wrapped up in sugar one of the most concentrated and valuable of all foods. Sweet and milk chocolate formed a considerable portion of the ration of the fighting men of Europe, for sugar is recognized as one of the greatest helps in fighting fatigue. When combined with chocolate its value and palatability are increased. Watch the diners in the dairy lunch room and notice how frequently a lump of sugar is taken from the bowl as the satisfied customer passes out. The lump of sugar added to the bowl or glass of milk helps materially to complete the meal. The restaurant proprietor is made aware of this fact when his bills come in.

Sugar gives quick results in energy. That is why a bit of sweet chocolate candy or lump of sugar is so stimulating and that is why sweet foods are always popular. If we all understood the proper use of sugar we should probably be a healthier people. The fault with it, the reason why children are denied it, is that it is eaten at such times and in such ways that the appetite being satiated is thereby spoiled for more complete foods.

Sugar is not a finished food. It is but part of a ration. It supplies carbohydrates and nothing else. It contains no mineral salts. It is entirely free from protein. It is lacking in fat. It is only the energy producer and must be supplemented by these other food essentials.

The average family uses five hundred pounds of sugar per year and every year the amount is increased. Even at its present high price sugar is one of the cheapest sources of energy. As valuable as sugar is in the diet there is danger of getting too much of it. Five ounces of sugar per day is a sufficient allowance for an adult. This is less than one-third of a pound. To eat half a pound of candy at a sitting is gluttony. It may be worse than mere over-feeding for an excess of sugar is not readily digested and certain forms of dyspepsia may follow. Children who live an active, out of door life assimilate sugar more readily than adults, but this fact does not warrant the use of too much sugar.

CANNED SALMON
ALL GRADES
ALL SIZES

*Largest Distributors in the World*

KELLEY-CLARKE CO.
New York City Seattle, Wash.

SOMETHING NEW
*Samples Gratis*
GRANULATED BORIC ACID
Will dissolve more readily than any form hitherto introduced
- - When ordering, specify - -
20 Mule Team Granulated Boric Acid
U. S. P.
Pacific Coast Borax Company
New York Chicago Oakland

## RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office. Copies thereof may be obtained from R. E. Burnham, patent and trademark attorney, Continental Trust Building, Washington, D. C.

1,295,160. Food product. Harry M. Heimerdinger, Blackfoot, Idaho.

1,295,161. Apparatus for producing a food product. Harry M. Heimerdinger, Blackfoot, Idaho.

1,295,162. Method of producing a food product. Harry M. Hiemerdinger, Blackfoot, Idaho.

1,295,172. Fruit-separator. Hugh H. Jackson, Los Angeles, Cal., assignor to West Highlands Citrus Association, West Highlands, Cal.

1,295,208. Sausage-linking machine. Louis Reisfeld and David G. Reichman, Chicago, Ill.

1,295,809. Sausage-stuffing machine. Granville H. Stallman, Chicago, Ill.

1,295,943. Method of manufacturing food products for fruits and vegetables and the products. Paul R. Welch, Westfield, N. Y., assignor to Welch Grape Juice Co., same place.

1,296,096. Gum-straining machine. Edward H. Lorenz and William Law, Hartford, Conn., assignors of six-ninths to Beech-Nut Packing Co., Canajoharie, and two-ninths to William A. Lorenz and one-ninth to Karl E. Peiler, Hartford, Conn.

1,296,112. Gum-strainer. Karl E. Peiler, Hartford, Conn., assignor of one-ninth to himself, two-ninths to William A. Lorenz, same place, and six-ninths to Beech-Nut Packing Co., Canajoharie, N. Y.

1,296,130. Fruit-cleaner. Fred Stebler, Riverside, Cal.

1,296,131. Fruit-cleaning machine. Fred Stebler, Riverside, Cal.

*Exclusive Individuality*
Does your wrapped loaf possess it? Wouldn't white ink help? Let us work with you on this matter.
THE WATERPROOF PAPER & BOARD CO.
WAXED PAPER MANUFACTURERS
CINCINNATI, OHIO
U. S. A.

## Municipal Food Control

(Continued from page 15)

I might say that this case is still under supervision and where definite assurance is not given regarding the final disposition of this milk it will be destroyed.

Quite recently the information has been received from the Government authorities concerning the shipment of watered scallops. Samples of these scallops obtained in the city were taken by representatives of this department and submitted for analysis to the Government laboratories. As a result of this there has been found that the scallops are unfit for food and action will be taken against the consigner in South Carolina by the Government.

This brief review of these cases will illustrate the many ways in which the Government and municipality will find it to their interest to combine, and will incidentally widen very considerably the opportunity for determining the purity or otherwise of foods sold with the municipalities.

I believe we have on our statute books a considerable number of very excellent laws controlling the purity of foods. However, the sophisticator and profiteer are frequently as skilled as the laboratory expert and many proceedings in food control will depend upon the opportunity for using the very highest technique and skill for the detection of impurities and hazards in foodstuffs. Many municipalities have neither the time nor the opportunity to see that the foodstuffs submitted to the can be subjected to an analysis of a high class and scientific nature. There can be no doubt that most municipalities will look to the Government for assistance in food control, especially where this goes further than the authority of the state or municipality.

Given the co-operation of the federal, state and municipal authorities, there should be no break in the chain which will control the ruthless profiteer who endangers the public health for the benefit of his pocket.

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Notwithstanding the great constructive work of the wholesale grocer, the value of the service he renders is little realized or appreciated beyond retail circles. From the standpoint of the consumer the wholesale grocer is the least known and the least tangible factor in the marketing and distributing of food stuffs.

While Food Prices Have Been Soaring Skyward

it is noticeable that Swift's Premium Oleomargarine changes in price but slightly.

Many who have heretofore never found it necessary to practice economics have begun to use oleomargarine on their tables with pleasing and satisfactory results.

Those who have tried Swift's Premium Oleomargarine find it a delicious spread for bread, appetizing and satisfying.

And thus it should be, for it is made in light, clean factories of carefully selected and choicest materials by the most improved machinery. It comes to you sweet, pure and clean—untouched by human hands, packed in air-tight, dust-proof cartons, bearing the seal of the U. S. Government inspection.

If you are seeking table economy without lessening the nutritious value, try Swift's Premium Oleomargarine as a spread for bread.

Swift & Company
U. S. A.

**All Nut Margarines Are Not Alike**

A perfect Nut Margarine should have the following requisites:

Keep sweet as long as butter.
Soften at the same temperature.
Have a butter flavor.
Have a texture so as to spread like butter.

FARRELL'S A-1 Brand has stood the test through the hottest months of Summer. We stand ready at all times to prove this statement.

Made from the delicious juice of cocoanuts.
Churned in pasteurized milk.
Contains no animal fats.

DOWNEY-FARRELL COMPANY
CHICAGO, ILL.

**E. PRITCHARD**
*Packer and Manufacturer of the Finest*
**"EDDYS"**
**BRAND**
Canned Foods, Jellies, Preserves,
Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup

Bridgeton, N. J. and 331 Spring Street, New York

WM J. MOXLEY'S
SPECIAL
OLEOMARGARINE

**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by Wm. J. Moxley, Incorporated Chicago

## Canned Tomatos Used as Baby Food

CANNERS and food officials alike will be interested in the statement that canned tomatoes are a most valuable baby food.

The canner has long claimed real value for his product. The boys in the trenches fought the harder and endured the better because they had the rich fruit from our sunny fields both to quench their thirst and nourish them. But not until Hess and Unger conducted their interesting experiments has anyone considered canned tomatoes a valuable food for infants as well as for soldiers on the fighting line or adults around the family table.

The use of tomato juice in warding off infantile scurvy is interestingly reported by Dr. Hess and Dr. Unger as follows:

> "In view of the fact that canned tomatoes are included in our army ration, in which they may be substituted for potatoes to the extent of 20 per cent, it seemed worth while to ascertain whether they possessed antiscorbutic properties.
>
> "Series of guinea pigs, five in each group, were put on a diet of hay, oats and water ad libitum and fed various amounts of strained tomatoes which had been canned almost one year previously. It was found that the addition of 5 c.c. (about 1¼ teaspoonful) of these tomatoes was sufficient to protect the animals from scurvy, and that larger amounts stimulated growth to a remarkable degree.
>
> "In view of this favorable experience on animals, for the past three or four months we have fed canned tomatoes to infants who were receiving pasteurized milk, substituting it in the dietary for orange juice, which has become increasingly expensive. The amount given to babies three months or more of age was 15 c.c. (a little less than 4 teaspoonfuls), half of this quantity being given daily to infants. The tomatoes have been uniformly well tolerated throughout the summer by babies as young as one or two months of age, and we can recommend this foodstuff as an economical and efficient antiscorbutic."

Heat to the boiling point is supposed to destroy the vitamine that protects against scurvy, but apparently does not do so in an acid medium such as tomatoes. All bottle babies should have orange juice or canned tomatoes after the second month.

## Flavoring Extracts

(Continued from page 8)

is no intention or disposition on the part of the prohibitionists to prohibit the sale of flavoring extracts is also just as apparent. Nevertheless the fact remains that actual loss of business is experienced by the flavoring extract manufacturers whenever this agitation comes up in any state and it is only fair to them and to business in general to devise some form of definition of intoxicating liquors that would take from the agitators the power to do harm to so good and legitimate an industry.

Failing in this there should be given more publicity by the Prohibition and other forces to the fact that where the law has not specifically exempted flavoring extracts the decisions of the courts have and there is no danger to the retailer who handles flavoring extracts.

Flavoring extracts can never become a beverage. Violent illness invariably follows their consumption except in the few cases of degenerates whose stomachs have been ruined anyway and responds to nothing short of carbolic acid. The alcohol in flavoring extracts is necessary to hold the extract in solution and no satisfactory extract that will keep under all conditions and preserve perfectly the desired flavor has ever been devised except those that contain alcohol. In the process of cooking the alcohol evaporates so that no trace appears in foods cooked with flavoring extracts embodied in them. It also quickly disappears when used in cold prepared foods.

Furthermore, after the alcohol and extract and other ingredients are thoroughly mixed there is no simple process known such as could be employed by any but the most expert chemists, to separate the ingredients again and permit the use of the alcohol for beverage purposes.

Flavoring extracts are today an absolute essential and after the country goes dry they will be even more so because they are needed in the manufacture of all soft drinks, ice cream, many candies and various tasty potables that will be relied upon to allay the craving for stronger liquids.

Notice should be served upon the agitators whether the extremists among the "Drys" or the subtle propogandists among the "Wets" to keep their hands off the food question as a club to bring about their own particular views. The courts have never supported the claims made by some of these agitators that flavoring extracts cannot be sold under the general definition of intoxicating liquor, and there is no evidence to support the belief that the courts ever will hold against the legitimate sale of flavoring extracts.

## Seaweed Furnishes Potash Fertilizer

Since the war stopped the supply of potash from Germany the Bureau of Soils of the United States Department of Agriculture has been experimenting with various processes for recovering potash from kelp, a seaweed. One of the experimental plants has been in successful operation for several months.

One of the by-products is kelp ash, which contains a potash content of more than 33 per cent. Several carloads of this product have been placed upon the eastern markets for fertilizer purposes. A carload was recently sold to a farmers' cooperative association in New York and was found so satisfactory that another carload was bought later. A third carload of kelp ash will reach Baltimore about May 1. Anyone interested in buying kelp ash in carload lots for fertilizer purposes may secure further information from the Bureau of Soils.

The Civil War gave a great impetus to the canning industry. The present war has developed dehydration. The great savings in transportation facilities, in packing materials, in storage space as result of drying, are economic factors in the food industry which insure the continuation of the drying industry after the close of the war.

Price's
Vanilla

THE pure juice of the vanilla bean—aged in wood to bring out its mellow flavor and rich, dark color. That's Price's Vanilla Extract! Not a bit of artificial vanillin, coumarin, nor coloring in it.

So much depends upon the *flavor* of your cakes and puddings, ice cream and candies that you want the very best!

Complete line of Price's flavors and colors. Send Tropikid cut from Extract carton with 3c stamp for our booklet "Delicious Desserts."

PRICE FLAVORING EXTRACT COMPANY
CHICAGO *In Business 66 Years* U. S. A.

*Look for Price's Tropikid on Label.*

## Standardized Milk

ALL milk laws have been framed on the idea that the consumer is entitled to milk just as it comes from the cow. If the cow produces rich milk that is the kind of milk to be left at the kitchen door; if the milk is low in fat it should be sold unmodified. Of course all these laws and ordinances were intended to prevent skimming and watering. In effect they have compelled the sale as milk of fluids of greatly different composition. That is the reason why the practice of standardizing milk by adding fat to milk poor in cream and taking away fat from milk rich in cream is coming to be recognized as a justifiable and, indeed, desirable practice.

A uniform milk cannot be produced except by standardizing it. Milk from one cow many contain less than three per cent of butter fat. Another cow in the same herd will perhaps give six per cent milk. When the milk from a large number of cows is mixed we are most likely to get milk of normal composition, but even then its character depends upon the breed of the cows and the locality in which the milk was produced.

For some purposes, especially for infant feeding, it is very important that milk be uniform in composition. A baby cannot be well fed on milk which contains five per cent of fat one day and three per cent another. Under present conditions in the dairy industry where one group of dairy farmers is striving to produce a maximum amount of milk with a low butter fat content and another group is interested in producing very rich milk, it seems certain that the public will get better milk if the butter fat of milk is brought up or down to a definite standard before sale.

SUGAR—3c lb.

One of Our Leaders. Our Wholesale Pure Food Catalogue containing this, and many other bargains Free with Trial Order.

**THOUSANDS** of dollars are wasted by sending expensive catalogues to people who don't mean business. To eliminate such unnecessary waste, so that we may be enabled to sell at the low prices we quote, we will send our Pure Food Catalogue only to people who prove they are really interested in saving money on groceries, by taking advantage of the saving offered in our Trial Order.

Some of The Bargains You Will Find in Our Catalogue.

**BEST FAMILY PATENT FLOUR 196 LB. BBL. 7.50**

**(ONE OF OUR LEADERS)**

Swift's Pride Laundry Soap, per bar........2c
Uneeda Biscuits, per package...............2c

**"We give the most for the least money"**

**ACT NOW**—Remember, we send our catalogue only to those who order a Trial Order. We do not sell a part of the Trial Order or any items in it separately, but our Pure Food Catalogue contains hundreds of great bargains which you are privileged to buy in any amounts you wish. Get this catalogue and save money. Send your trial order to-day. Simply enclose $1.99 and say, "Send Me Trial Order."

**TRIAL ORDER**

**Approximate Weight, 13 Lbs.**

| Approximate Retail Price | | Our Wholesale Price To You |
|---|---|---|
| $0.55 | 5 Lbs. Best Pure Granulated Sugar | $0.15 |
| .08 | 1 Bar Ivory Toilet Soap | .02 |
| .08 | 1 Pkg. Gold Dust Washing Powder | .02 |
| .10 | 1 Cake Borden's American Sweet Milk Chocolate | .02 |
| .15 | 1 Large Pkg. Fresh Toasted Corn Flakes | .06 |
| .15 | 1 Can Vegetable Soup — Prepared and ready to serve | .08 |
| .39 | 1 Bottle Highly Concentrated Laundry Bluing | .23 |
| .20 | 1 Lb. Cranberry Fancy Hand Picked Dried Beans | .15 |
| .30 | ½ Lb. Pure High Grade Breakfast Cocoa | .18 |
| .25 | 1 Bottle Pure Tomato Catsup | .19 |
| .25 | 1 Pkg. High Grade, First Crop Uncolored Japan Tea. | .15 |
| .20 | ½ Lb. Fancy California Seedless Raisins | .13 |
| .20 | 1 Lb. Guaranteed Baking Soda | .14 |
| .50 | 1 Bottle Pure Full Strength Vanilla Extract | .33 |
| .20 | 2 Bars Cinderella. The Wonder Dye Soap | .14 |

**Our Special Catalog Free**

$3.60 **OUR WHOLESALE PRICE TO YOU** ☛ **$1.99**

**Approximate saving to you of $1.61.**

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ORIGINATORS OF EVAPORATED MILK

Whiter—Sweeter—Lighter Bread and Cake

The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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THE WHOLESOME
BAKING POWDER

insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

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Providence, R. I.

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## It Is Unsafe to Libel Foods

A FEW years ago a story was sent out from some unknown source to the effect that a then popular breakfast food contained arsenic. In a short time the consumers generally had heard the story, and whether they believed it or not, stopped using that brand of cereal. A business which had cost thousands of dollars to establish and a brand of food of high quality was destroyed by a false rumor.

Scores of cases of food poisoning are reported yearly, although in almost every instance investigation shows no basis for the report. The unfortunate ice cream maker, dairyman or butcher whose goods were libeled and business destroyed has had no recourse. The only thing for him to do has been to live down an unmerited evil reputation. But now the courts have come to his rescue. The Court of Appeals of New York in the first out-and-out decision of the highest court of any state has said that a libel on a food product is a libel on the manufacturer of that product. The court further says that the publication of any story to the effect that a specific food product is unwholesome, adulterated or misbranded, is libelous per se, if the facts given are not correct.

The judgment was rendered in a case brought by an ice cream company against a newspaper which had published a story to the effect that ice cream manufactured by the company had caused the death of one child and the serious illness of several others.

This is a good law. Manufacturers of unwholesome food should be exposed and every bad feature of their business should be held up that the public may see it and withdraw its patronage. But such verdicts as the one handed down by the New York court will have a wholesome effect in stopping unwarranted attacks by publication of false and sensational tales of poisoning and death by the eating of bad candy or adulterated canned goods.

## Difference Between Roasting, Grilling and Stewing

THOSE who love flavor want their meat roasted in the oven or grilled over the coals; those who are interested chiefly in getting the most out of the cut use the stew pan. The difference between roasting and grilling or stewing is the difference between the cooking media.

The grilled steak or chop or roast joint is meat stewed in its own juice instead of in water. There is little difference in the chemical change which takes place in the meat. In all cases the albumin is coagulated and the gelatinous and fibrous tissue softened by being heated in a liquid solvent. The juices are retained within the roasted or grilled meat, while in stewing they escape more or less into the water. Long continued stewing so completely loosens the tissue that a large part of the soluble constituents of the meat are found in the liquor.

When the highly flavored and soluble portions are cooked out of the meat they make an excellent bouillon and when this dish is used as the first course in a meal in which the residual meat left in the pot is served with vegetables or special sauces, the diner is well fed. As to whether or not the concentration of flavor in the broiled steak is better for the eater than the milder taste in the boiled dish is a debatable question. Both methods of preparation are acceptable, but whether the cook roasts the beef or boils it his work must be well done. A novice before the coals will let the rich juice escape from the meat and waste in the fire. A poor cook will serve the beef but half boiled or, having taken the solid piece from the pot, will waste the water loaded with flavor and mineral salts.

Good cookery is an art. The expert cook is an artist.

**TIN and FIBRE**
**CONTAINERS**
*for*
**Foods—Drugs—Oils**
**Infinite Variety**
**Large Capacities**
**Prompt Deliveries**
**American Can Company**
**Chicago New York San Francisco**
*With Offices In All Large Cities*

**Every Kind of**
**WARD'S**
**FAR FAMED**
**BREAD and CAKES**
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

**WARD BAKING COMPANY**
**New York Boston Providence Cleveland**
**Brooklyn Pittsburgh Chicago Baltimore**

# JUDGMENTS *under the* FOOD *and* DRUGS ACT

**6201. Adulteration of tomato pulp.**
Adulteration of the above article was alleged as it consisted in part of decomposed and moldy vegetable substance. On February 1, 1918, condemnation and forfeiture was entered and product should be destroyed.

**6202. Adulteration of evaporated milk.**
The above labeled Mount Vernon Evaporated Milk was found to be adulterated as it contained a filthy, putrid and decomposed animal substance. On February 4, 1918, no claimant having appeared for property, decree of condemnation and forfeiture was entered. Product was ordered destroyed.

**6203. Adulteration of fish.**
The above product was found to be adulterated, as it contained a filthy and decomposed animal substance. On March 26, 1918, no claimant appeared and it was ordered product should be destroyed.

**6205. Adulteration and misbranding of tomatoes.**
Tomatoes was alleged adulterated and misbranded because water had been mixed to substitute in part tomatoes. Article was labeled Pride of Golden Hill Brand Tomatoes, but did not have marked on label weight of contents. On May 10, 1918, defendants pleaded guilty and paid a fine of $50.

**6206. Adulteration of sardines.**
Sardines were alleged adulterated as they contained in part a decomposed animal substance. On April 29, 1918, claimant pleaded guilty and court ordered product destroyed.

**6207. Adulteration and misbranding of evaporated milk.**
The above was alleged for reasons that a partially evaporated milk was mixed and was substituted in part for evaporated milk. It was misleading as the label bore Evaporated Milk and really was a product other than pure evaporated milk, and it did not have marked on label weight of contents. On March 12, 1918, claimant pleaded guilty and court ordered product delivered upon payment of $11,000 bond and that product be relabeled.

**6208. Adulteration of grapefruit.**
Adulteration of Grapefruit was alleged for reasons that it was frozen and tissues were undergoing rapid disintegration as a result of freezing, and consisted in part of bitter, soft, mushy and partly decomposed grapefruit. On January 30, 1918, the unadulterated grapefruit was sorted and sold, and the balance was ordered destroyed.

**6209. Adulteration of oranges and tangerines.**
Substantially the same as 6208.

**6211. Adulteration of grapefruit.**
The above was alleged for reasons that it was colored in a manner whereby inferiority was concealed and immature grapefruit was substituted in part for mature grapefruit. On October 19, 1917, claimant pleaded guilty and court ordered product relabeled "Colored by Sweating" and released on $1,000 bonds.

**6212. Adulteration of milk.**
Milk was found adulterated as water had been mixed and substituted in part for milk. On May 15, 1918, defendant pleaded guilty and was fined $50.

**6213. Adulteration of grapefruit.**
Substantially the same as 6208.

**6214. Misbranding of cottonseed meal or cake.**
Choice Cotton Seed Meal or Cake was alleged misbranded, as it stated it contained 41 per cent crude protein, 6 per cent crude fat, 10½ per cent crude fiber and in truth contained less crude protein and crude fat and more crude fiber than declared on label. On May 6, 1918, the defendant company pleaded guilty and was fined $50 and costs.

**6216. Adulteration of shell eggs.**
Shell eggs was found adulterated for reasons that it contained in part decomposed and filthy animal substance. On March 11, 1918, claimant pleaded guilty and the court ordered that unfit for human food destroyed and that fit for food be sold.

**6217. Adulteration of grapefruit.**
Adulteration of this article was alleged for the reason that it consisted of a decomposed vegetable substance. On May 13, 1918, no claimant having appeared for the property degree of condemnation and forfeiture was entered and ordered product should be destroyed.

**6219. Adulteration of grapefruit.**
Substantially the same as 6217.

**6220. Adulteration of tomato pulp.**
Substantially the same as 6201.

**6223. Adulteration and misbranding of so-called saccharin.**
Adulteration of saccharin was alleged as it differed from standard strength, quality and purity, and was sold for saccharin. On May 14, 1918, product was ordered destroyed.

**6224. Adulteration and misbranding of olive oil.**
Olive Oil was found to be adulterated and misbranded for reasons that it contained part cottonseed oil and was sold for olive oil, also that it did not contain the amount of contents on label. On April 4, 1918, condemnation and forfeiture was entered and it was ordered by the court product should be released and claimant pay costs of proceedings.

**6225. Adulteration and misbranding of vinegar.**
It was alleged the above article was adulterated in violation of section 7 and misbranded in violation of section 8 of the Food and Drugs Act. On May 8, 1918, decree of condemnation and forfeiture was entered and product was ordered released on $1,000 bonds.

**6226. Adulteration of tomato puree.**
Substantially the same as 6201.

**6227. Adulteration and misbranding of olive oil.**
The article labeled Pure Olive Oil was found adulterated, as it contained cottonseed oil and substituted for olive oil, which was labeled as such, and purported to be a foreign product, when it was of domestic manufacture. On May 17, 1918, court released the product to claimant on $500 bonds.

**6228. Adulteration and misbranding of evaporated cream.**
The above was alleged for reasons that evaporated milk had been substituted for evaporated cream and was sold for evaporated cream. On May 14, 1918, decree of condemnation and forfeiture was entered and product was ordered released on $250 bonds.

**6229. Adulteration of ear corn.**
The above was alleged adulterated, as it contained in part a decomposed vegetable substance. On April 27, 1918, court released product to claimant upon payment of $500 bonds.

**6230. Misbranding of evaporated apples.**
The above was misbranded in that the label said 8 oz. net weight, and in fact the carton weight 25 per cent less. On December 9, 1918, consent decree of condemnation and forfeiture was entered and product was ordered released on bond.

**6231. Adulteration and misbranding of cottonseed meal.**
The above was alleged adulterated in violation of section 7 and misbranded in violation of section 8 of the Food and Drugs Act. On June 27, 1917, court ordered product released on payment of $1,000 bond and court costs.

**6232. Adulteration and misbranding of wheat.**
Adulteration of above article was alleged as chess, trash and weed seeds had been mixed and substituted for article labeled "Wheat, 100 Pounds Gross" and was found misbranded as the gross weight of contents was marked on the sacks instead of the net weight. On May 16, 1916, court ordered product released upon payment of $100 bond.

**6233. Misbranding of cottonseed meal.**
The article was misbranded as the label bore 100 Pounds Second Class Cotton Seed Meal, as they contained a great deal less than 100 pounds. On November 30, 1917, court ordered product released upon execution of $1,000 bond.

**6234. Misbranding of cottonseed meal.**
Substantially the same as 6233.

**6235. Misbranding of cottonseed meal.**
Substantially the same as 6233.

**6236. Adulteration and misbranding of East Coast Sweet Feed.**
The above was adulterated as it contained in part a filthy, decomposed and putrid vegetable substance, and was deficient in fat and nitrogen-free extract and contained crude fiber. Misbranded because net weight of contents was not marked on package. On November 23, 1917, product was released on bond.

**6237. Misbranding of cottonseed meal.**
Misbranding was alleged because net weight of product was not marked on sacks. On March 21, 1918, product was ordered released on $500 bond.

**6238. Adulteration and misbranding of walnuts.**
The above was found adulterated and misbranded because it contained a filthy, decomposed vegetable substance and net weight of contents was not marked on package. On March 11, 1918, property was sold conditioned that product should be relabeled and purchaser pay $250 bond.

**6239. Misbranding of Eggette.**
Misbranded because label showed each package was equal in food value to 12 eggs and it really contained a large per cent of cereal; also that quantity of contents was not marked on package. On March 11, 1918, court ordered product sold and that the purchaser execute a $100 bond and product should be relabeled.

**6240. Misbranding of Eggette.**
Substantially the same as 6239.

6242. **Misbranding of cottonseed cake.** and product should be relabeled.

6245. **Adulteration of prunes.** Adulteration of this article was alleged, as it consisted in part of filthy, decomposed and putrid animal and vegetable substance. October 17, 1918, court ordered product destroyed.

6247. **Adulteration of corn.** Adulteration was found because it consisted in part of decomposed vegetable substance. April 23, 1918, court ordered product released on $1,000 bond.

6248. **Adulteration and misbranding of evaporated apples.** Adulterated because it contained decomposed vegetable substance and was in moldy condition. Misbranded because contents were labeled Net Weight 8 Oz. and, in fact, was 16 per cent less. July 17, 1918, court ordered product destroyed.

6249. **Adulteration and misbranding of evaporated apples.** Substantially the same as 6248.

6250. **Adulteration and misbranding of vinegar.** Substantially the same as 6225.

6251. **Adulteration of corn meal.** Adulteration of the article was alleged as it consisted of a decomposed vegetable substance. July 10, 1918, court ordered product released upon payment of costs and $1,000 bond, and product relabeled "Damaged Corn Meal. Fit for Hog Feed Only."

6252. **Adulteration of ear corn.** Adulteration of this article was found because it consisted in part of about 90 per cent decomposed vegetable substance. May 15, 1918, no claimant appeared for property and product was sold by U. S. Damaged corn, fit for hog feed only.

6253. **Adulteration of ear corn.** Substantially the same 6252.

6254. **Adulteration of bacon.** Bacon was found adulterated as it consisted of a filthy and decomposed animal and vegetable substance. November 22, 1917, defendant pleaded guilty and was fined $20.

6255. **Adulteration of milk.** Milk was found to be adulterated as it was mixed with water. December 13, 1917, defendant entered plea of guilty and was fined $10.

6256. **Adulteration of milk** Adulteration of above article was alleged, as butter fat had been taken from milk. December 31, 1917, defendant pleaded guilty and was fined $25.

6257. **Adulteration of milk.** Substantially the same as 6255.

6258. **Adulteration of milk.** Substantially the same as 6255.

6267. **Adulteration of milk.** Substantially the same as 6256.

(Continued on page 49)

**Jiffy-Jell** Flavors in Vials

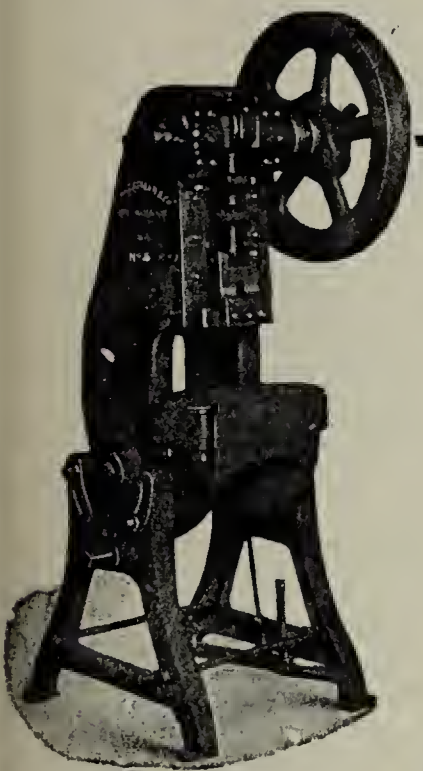
In Jiffy-Jell the flavors come in liquid form, in vials. They are made from fresh, ripe fruit. They give to Jiffy-Jell desserts a wealth of fresh-fruit taste.

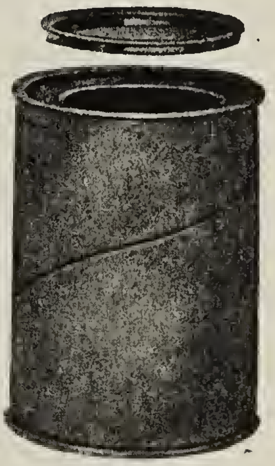
With Jiffy-Jell you can make a delicious dessert in an instant. It comes ready-sweetened, so it saves your sugar. And it costs but a trifle. A single package serves six.

There are 10 flavors, but we suggest Loganberry or Pineapple. Try it today. It will bring you a new conception of gelatine desserts.

*2 Packages for 25 Cents at Your Grocer's*

**Jiffy-Jell, Waukesha, Wisconsin**





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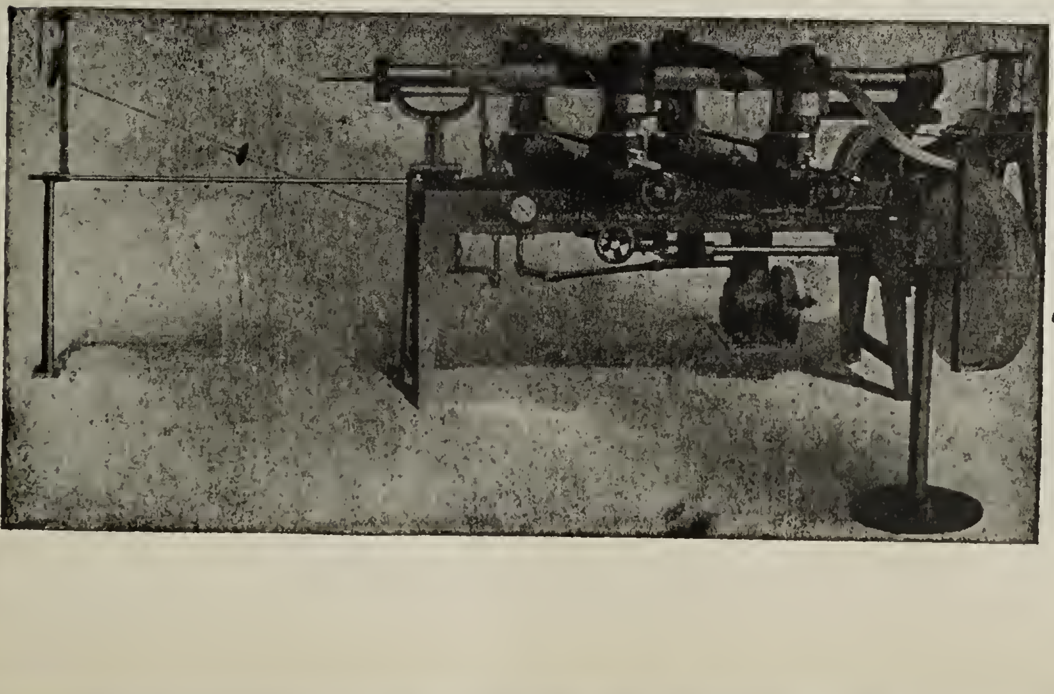
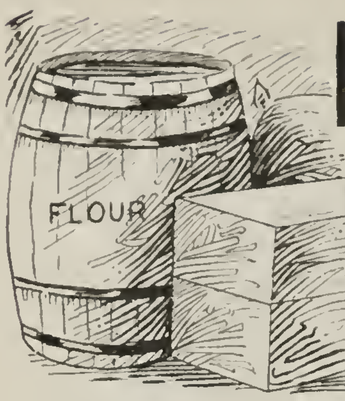
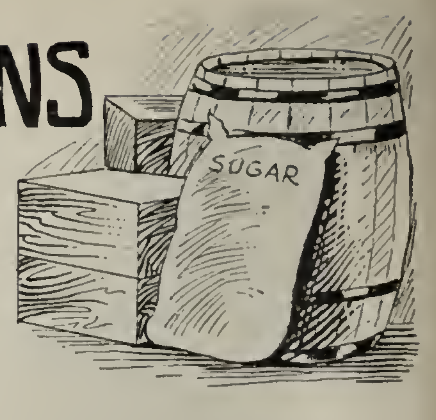




# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY



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**Western Fruit Jobbers' Association of America**
W. D. Tidwell, Esq., P. O. Box 1349, Denver, Colo.

**Western Paper Box Manufacturers' Association**
J. L. Kalleen, *Secretary*, 817 Board of Trade Bldg., Indianapolis, Ind.

# James Foust Warns Against Cheap Soft Drinks

JAMES FOUST, Dairy and Food Commissioner of Pennsylvania, outlined to the officials gathered in convention of the Central Atlantic States Dairy, Food and Drug Officials' Association what he believed would happen after July 1st when the country goes dry.

He says that under all sorts of names, trade and coined, so-called non-alcoholic drinks would be prepared and sold which upon analysis would prove to be alcoholic and intoxicating, and that this was a matter the food control officials had better prepare for and be ready to meet.

He also stated under the discussion which followed that there were $100,000,000 invested in this country in the soft drink industry and that the legitimate trade had no right to compete with the cheap, unsanitary joints, often located in cellars and unsanitary places and ran by unsanitary people who dispensed their concoctions in the poorer sections of our large cities for one and two cents a drink; that it was not fair to the legitimate trade that had built large sanitary plants with the most modern equipment, using pure and wholesome materials. His remarks had reference to two phases of the business and did not refer to the legitimate bottler, but protected him.

"As you know," he continued, "there is now on sale in certain dry counties so-called soft drinks which contain from two to three per cent alcohol. This will get worse after July 1st."

He further stated that the ice cream industry represented $50,000,000 fifteen years ago and it has grown until now it represents $150,000,000, and that the soft drink or soda water industry is increasing with leaps and bounds and the people who are spending their money to improve this line of business by building modern sanitary plants should be encouraged and not compelled to compete with the bottlers and vendors who manufacture their product in unsanitary places and sell their so-called soft drinks to children. This is especially true in the poorer and crowded districts of our large cities where some of the beverages can be purchased for one and two cents a drink. Many of these preparations contain dirt, germs and sometimes dope, and are undermining the health of helpless children. He said he believed that something drastic should be done to protect the innocent little victims.

## Judgments

(Continued from page 47)

6277. **Adulteration of milk.**
Substantially the same as 6256.

6278. **Adulteration of milk.**
Substantially the same as 6256.

6279. **Adulteration of black-eyed peas.**
The above product was found adulterated, as it consisted in part of a filthy and decomposed animal or vegetable substance. April 16, 1918, defendant failed to appear and $20 as collateral was forfeited.

6280. **Adulteration of milk.**
Substantially the same as 6255.

6281. **Adulteration of oysters.**
Substantially the same as 6271.

6282. **Adulteration of lard.**
Lard was found unadulterated, as cottonseed oil and beef stearin had been substituted. April 27, 1918, defendant pleaded guilty and was fined $20.

NUCOA
NUCOA

*Butters Bread*
*Stays Sweet*

PACKED AND SEALED AT THE CHURN

THE NUCOA BUTTER CO.,
CHURNERS

Woolworth Bldg., New York
111 West Washington St., Chicago
1964-68 Bryant St., San Francisco
2144 Violet St., Los Angeles

CHURNED FROM NUTS & MILK
TRADE MARK

America's favorite breakfast

In hundreds of thousands of American homes no breakfast is complete without Aunt Jemima Pancakes—rich, nourishing, always-uniform, always-perfect pancakes.

Aunt Jemima Pancake Flour is a scientific blending of carefully selected cereals, with even the powdered sweet milk mixed in. Just add water, and in two minutes your breakfast is ready.

**Aunt Jemima Mills Company**
**St. Joseph, Missouri**

REG. U. S. PAT. OFF.
*"I'se in town, Honey!"*

Copyright 1919, Aunt Jemima Mills Co., St. Joseph, Mo.

**BON BON**
*The Original Alum Baking Powder*
Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.
**J. C. Grant Chemical Co.**
**East St. Louis, Ill.**

**Illinois Vinegar Mfg. Co.**
Sales Department
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**Chicago, Ill.**
Manufacturers of High Grade
**DISTILLED VINEGAR**

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RYZON and Food Education

Interest in careful preparation of food grows more widespread every year. Schools, magazines and newspapers are teaching the importance of modern methods in the kitchen.

And so when a new baking powder was introduced there were thousands of progressive housewives and domestic science teachers to welcome RYZON, the Perfect Baking Powder.

Their tests convinced them of its scientific, economical and dependable qualities—a baking powder that insured successful results—and they found their own high standards of food preparation embodied in the new RYZON Baking Book. Their endorsement has been a big factor in spreading the doctrine of better food preparation.

*RYZON is 40c a pound. The new RYZON Baking Book (original price $1.00), containing 250 practical recipes, many of conservation value and others easily adapted to present day needs, will be mailed, postpaid, upon receipt of 30c in stamps or coin, except in Canada.*

**GENERAL CHEMICAL CO.**
**FOOD DEPARTMENT**
**NEW YORK**

*We must all do our best to make the change from War Work to Peace Work as easy as possible. Cooperation is the Big Thing needed NOW.*

*U. S. DEPT. OF LABOR*
*Wm. B. Wilson, Secretary*

Cost per 1000 Calories
Quaker Oats ........ 5¢
Round Steak ........ 41¢
Veal Cutlets ........ 57¢
Average Fish ........ 60¢
Hubbard Squash ........ 75¢

A Woman's School of Economy

*Would Have Lessons Like These*

One thing to know in buying food is the cost per calory unit. That's the energy measure of food value.

Meats and fish on this basis cost at least ten times Quaker Oats. And some foods cost up to twice as much as meat.

Each 30-cent package of Quaker Oats used to displace meat at breakfast saves about $3.

Another thing to know is the sort of nutriment.

The oat is the food of foods. As a vim food it has age-old fame. In protein it equals beef, and stands first among the brain foods. It is rich in needed minerals.

Quaker Oats with milk forms almost the ideal food.

One needs a mixed diet. Some costly foods are necessary.

But the supreme breakfast is a dish of Quaker Oats. The cost is one-half cent.

It means a delicious breakfast, an extremely nutritious breakfast. And the trifling cost will average up the costlier meals of the day.

Quaker Oats

*Extra-Flavory Flakes*

Make your oat dishes delightful by using Quaker Oats. They are flaked from queen grains only—just the rich, plump, luscious oats. We get but ten pounds from a bushel.

Get the extra flavor which we bring you in this way.

***Prices Reduced to 12c and 30c a Package***
***Except in the Far West and South***
***Packed in Sealed Round Packages with Removable Cover***

(3091)

THE AMERICAN FOOD JOURNAL

VOL. XIV JUNE, 1919 No. 6

Cunard Bldg., Chicago

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## In the Day's Work

OVER a hundred subscribers asked for extra copies of our May issue. These requests were, in many cases, for quantities. Several wanted a hundred or more. We could have sold several hundred more copies if we had them to spare. Our extras were sold out three days after the issue was off the press. This is all very pleasing, for people do not send wires or put in long distance phone calls to get copies of a magazine unless they want them and want them very much. We may be all wrong in our logic, but we sort of figure that the reason they want extra copies is because we are giving the food industry a creditable magazine in which they see a real value. I tell you it gives us a lot of encouragement to have prominent food officials who have followed the FOOD JOURNAL from its beginning, tell us there is no comparison in the FOOD JOURNAL today with what it was under other management. When this same sentiment is voiced by several big food manufacturers, we cannot help but feel that we are on the right road. The evidence this last month of requests for extra copies, letters of commendation, etc., help us to "carry on" even though the advertising does seem slow in increasing.

Everybody tells us to keep on going and the advertising will come, this we expect to do. I have "somewhat of a hunch" that most of the big advertisers who are not with us now, are simply waiting to see if we are a flash in the pan or if we are really going to improve our efforts in building up a potential magazine.

Last week a letter came in from one of the biggest national advertisers, frankly telling us that they expected to give us some advertising when we were "established." There are perhaps others who feel the same way. However, if there is any question in their minds that we are not going to grow better as we gain in experience, it can be put down as another foolish question.

We may make mistakes, in fact, we have made many during the past six months, but these have been errors of inexperience by which we have profited and not mistakes of heart.

The AMERICAN FOOD JOURNAL we find has, in its thirteen years of progress, made friends and foes, it could not do otherwise and be more than a jellyfish? For there are many questions constantly coming up where right and wrong must find a fighting arena and the AMERICAN FOOD JOURNAL has often furnished the forum. "Be that as it may," to quote a corpulent comedian: We don't object to the criticism of our enemy because we have long since given up the idea of pleasing everybody. But we do most earnestly protest against any accusations of unfairness, being a tool of anybody or in any way subsidized.

We will continue to voice our sincere protest against wild-eyed reformers who seem to think that because a corporation has built up a business it should be crippled and hampered by absurd legislation until it ceases to be

(Continued on page 7)

**June Joys**
**Which Belong Together**

***Bubble Grains and Berries***

When berries come, mix Puffed Grains with them—always. Every fruit dish needs—like shortcake—some flaky, crusty blend.

These flimsy, toasted bubbles add a flavory delight. Yet, like the sugar, they almost melt away.

The Ideal Dish for summer suppers and luncheons is Puffed Wheat and milk. Think of toasted whole grains, light and airy, puffed to eight times normal size.

**Morning Greetings**

The most welcome dish at breakfast is some Puffed Grain, as you know. There is no other way to make a grain so enticing.

At play time, countless mothers crisp these grains and douse with melted butter. Then these tidbits become food confections for children to eat dry.

**Never Enough**

Rarely do children get enough whole-grain food. Puffed Wheat and Puffed Rice supply it.

They supply it with every food cell blasted, so digestion is easy and complete.

For Puffed Grains are steam-exploded. Every granule is fitted to feed. While they seem like mere enticements they are scientific foods.

Children who don't get enough eat something less desirable.

Puffed Rice and Corn Puffs taste like bubbled nut meats. They make candy light and nutty. They form a flimsy, nut-like garnish for ice cream.

Any Puffed Grain forms ideal toasted wafers for your soups.

**Puffed Wheat Puffed Rice**
**Corn Puffs**
All Bubble Grains
*Each 15c* *Except in Far West*

**The Quaker Oats Company**
Sole Makers

(3079)

# Few Gifts of Nature Have Proved More Useful to Mankind Than Corn— King of American Cereals

**CORN STARCH**—edible, laundry, or lump, has grown to be a household necessity.

**CORN OIL**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. **Corn Oil** has made a distinct place in the home.

**CORN SUGAR**—has its place with the ice-cream manufacturer, the physician and the baker.

**CORN SYRUP**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

## American Manufacturers' Association of Products from Corn

**208 South La Salle Street** **CHICAGO, ILLINOIS**

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## In the Day's Work

(Continued from page 5)

of use to humanity. If we had the space we could sight some shining examples of where honest legitimate business has been so fettered as to cause mankind to lose good food products or make it necessary to pay exorbitant prices for them.

In exposing such industrial crimes naturally we make enemies. We do not care about this for we do not want the support or friendship of any but fair men in the Food Industry. We do, however, plead with our readers to use our paper to defend or expose injustice in the food field. We will greatly welcome such correspondence. We believe that there is an inside story to almost every industry that should be told.

For. instance, the liquor interests are endeavoring to convince Congress and the different state legislatures that flavoring extracts should be prohibited because they contain a percentage of alcohol. As it is claimed that flavoring extracts cannot be successfully made without alcohol, and as most soft drinks, ice cream and desserts require flavoring extracts, it can be easily appreciated that an agitation of abolishing flavoring extracts would effect a great many legitimate interests and naturally the liquor men are fanning this flame. When prohibition does take place, however, the public cannot be deprived of soft drinks, ice cream, flavored candies, etc. That is why although admitting that it would be better if alcohol was not used in flavoring extracts, yet it is, and prohibition would defeat the very purpose of liquor prohibition by robbing the people of soft drink alternatives.

Then there is a question of butter alternatives; if this were viewed from a standpoint of economics, instead of the mysterious and over-played vitimines it would clear up much in the minds of the butter men. In other words, the world can use much more butter than can be produced, consequently, alternatives have been created which will be sold as long as butter cannot be had at prices which all can afford. Had it not been for butter alternatives during the war, the price of butter would undoubtedly have reached the dollar mark. The public can and will always use all the butter that can be made. We believe there is a place for butter alternatives as well and earnestly contend there should be no competition between them, there being a distinct place for each.

We have been accused of being friends of oleomargarine, we acknowledge this, but in the same breath we claim we are just as good a friend of the butter interests. If this is doubted, carefully read our articles now running on the subject of Oleomargarine and see if you can detect a spirit of unfairness in them.

We welcome criticism, we appreciate suggestions, so when you see something you like or do not like in the American Food Journal, tell us.

(To be continued in July.)

C. A. Patterson,
*Publisher.*

**What Oleomargarine Is**

Oleomargarine is not a substitute for butter, and we have never sold it as such. Oleomargarine is a wholesome, healthfull spread for bread.

Its food value is recognized, its purity has never been questioned. Swift's Premium Oleomargarine bears the seal of the U. S. Government inspection. It is made of the cleanest, choicest materials obtainable, and comes to you pure and sanitary — untouched by human hands.

As a food, it contains the elements of growth and nutrition for child and man.

Its price places its use within the reach of all.

***Try a pound of Swift's Premium Oleomargarine Today.***

Swift & Company
U. S. A.

*Sell*

Coca-Cola

TRADE MARK REGISTERED

PROFITABLE and REPEATING

Coca-Cola stands on its *quality.*

*Our* advertising sends customers to *you.*

Sell quality goods backed by truthful advertising.

Drink genuine Coca-Cola yourself, and you will understand why your customers, sooner or later, find the place that serves *genuine* Coca-Cola.

Imitations never pay.

THE COCA-COLA CO.
ATLANTA, GA.

Asked for Everywhere

# Food Manufactures Should Have Governmental Protection

## Federal Law Is Needed to Stop Practices and Legislation by States Which Tend to Hamper Production and Distribution

ACTION was taken by the National Confectioners' Association at their annual convention last month which, if the suggestion is carried out, will bring about one of the most needed reforms affecting the manufacture and distribution of food and which will do more to clear up the many mixups and discrepancies in our laws and food manufacturing situation than any amount of state regulation could do. The resolution adopted at the convention was as follows:

*Be it Resolved, That we favor having the Congress of the United States enact a law that will give food shipped in interstate commerce the fullest protection from being interfered with by state officials or state food laws.*

While this resolution was passed by men representing only a limited number and kind of food articles shipped in interstate commerce, it is safe to say that the manufacturers of practically every kind of food on which the people of our country are dependent for their existence will say "Amen" to the proposal; and that other food organizations will go on record in the very near future as favoring such a law is a conclusion that will be readily admitted by practically every one conversant with the situation.

To present the history of the impulse behind this movement would require a book of more pages than the Bible. Such a history would include the analysis of many hundreds of law suits which have been carried through all of the courts of the country to determine the meaning of certain state laws passed by a group of state legislators who had neither adequate knowledge nor breadth of vision necessary to pass intelligently on the subject of their law making. Such a history would include in its pages the stories of long and expensive researches by lawyers and specialists to determine just how a certain article should be branded and sold in the various states before the manufacturer or producer dared to enter upon a broad selling campaign. And sad, but true, how the conclusions of the lawyers and researchers were often set at nought by officials who arbitrarily insisted upon their own views being followed and forced the manufacturers into a long and expensive law suit.

Such a history would tell of hundreds of thousands of dollars spent in what should have been unnecessary litigation and hundreds of thousands more that will have to be spent in the same way if our present system is held to. It would tell of vast expenditures of time and money in changing labels, advertising matter and selling methods so that the various laws of the forty-eight states might be met. It would recite the many stories of expensive lobbies maintained in the various states to pass favorable or prevent the passage of unfavorable legislation that would affect the product of one or more manufacturers. And in reciting the stories of the lobbies there must, of course, be included stories of graft and corruption such as are sure to arise out of bitter legislative fights.

In summing up the whole matter and accounting for the money spent such a book would have to conclude with the statement that the consumer pays the bills in extra prices tacked onto the commodities.

Of course a law such as is sought would not affect the states' rights to control goods produced and marketed locally, articles which are purely of intrastate commerce, because the Federal Government could not and should not be burdened with the duty of trying to regulate purely local matters, but these articles are comparatively few. Our great centers of population demand such vast amount of food that no one state is capable of producing it. Our people in both the large and small communities have been educated to consume great varieties of food, more kinds than the climatic or soil conditions of any state can produce. There is hardly a village or farming community in this whole country, not to mention the large cities, which does not depend upon practically every other section of the country for some of its most desired articles of diet. No state is sufficient unto itself and each must depend upon the other for much of its food supply.

Thus practically every article of food comes for a time under the existing Federal food laws and interstate commerce regulations, but under our present system it is only for a time. When food is shipped in large quantities from state to state it comes under the jurisdiction of the Federal Government, but as soon as it is placed on the shelves of the retailer it comes under the jurisdiction of the state laws and must conform to these state laws no matter how foolish they are or how much extra cost they may cause to be added to the product. Many products that are sold in every state in the Union have to be labeled and advertised differently in some states than in others and sometimes even the formula of the product itself must be changed for some particular state where a freak law has been passed.

All this is not only very costly in dollars and cents for the whole country, but it has actually resulted in the people of some states being deprived of the use of certain articles of food because the manufacturers could not see their way clear to meet the strange demands of the laws of those states and have refrained from trying to sell there.

There are many cases on record where certain articles of food have been sold for years under a label which has been approved and then some state legislator, because of ignorance or a prejudice, succeeds in having a law passed in his state which compels a change of label. There are cases where the wholesomeness of a product is not questioned, but some freak circumstance or maybe a law passed to regulate some other product, is later found to be worded so as to affect this article which was not thought of when the law was passed, and the article which was not originally the target of the legislative action has to be changed to conform to the law.

There are many cases where the state laws that have been passed against a certain article were instigated by the manufacturers of a competitive product and many cases where the officials of some particular state have taken a stand in interpreting a state law which apparently the original law makers never intended. Thus we have many decisions of the Supreme Court worded somewhat as follows: "The question of the wholesomeness or purity of the product has not been made an issue in this case. But inasmuch as under the existing Federal statutes the state has the right to make laws governing this and other commodities and inasmuch as the state has delegated the power of interpretation and enforcement of these laws to certain state officials the dictum of these officials must be held as final and as the Congress of the United States has not seen fit to take from the states the power this court cannot do otherwise than decree that as the state has the right this right must be respected."

In other words, the Supreme Court has repeatedly been appealed to and the decision has been that it could not go into the character of the product because the state had final jurisdiction and all the court could do was to uphold the state in the matter of jurisdiction.

The necessity of marketing products under such a multiplicity and such a variety of regulations is not conducive to efficient handling of our food situation. We have outgrown such a system, and now that the readjustment period is here and the eyes of discerning people have been opened to the vast needs of the world for larger quantities of good food, it is high time that steps be taken to remove the obstacles that stand in the way of maximum production and facility of distribution.

The enactment of a Federal statute to accomplish the purposes outlined would not mean the letting down of effort to keep adulterated or impure food from the market. Such a law could be so drawn as to protect the public against impure or unwholesome food. Instead of having forty-eight standards of purity we should have one national standard with suitable provisions for inspection and enforcement of such standard. Rather than weakening our pure food regulations such a measure would strengthen it, as it is a well known fact that there is less tendency to violate Uncle Sam's regulations than the state or local laws.

Since the enactment of the first pure food laws conditions have changed greatly. Such laws are no longer regarded by manufacturers as violations of their rights. There is no longer the same tendency that was first noted to foist impure or poisonous foods upon the public by deceptive methods of advertising and selling. There are still and probably always will be some who are deliberately dishonest as to the character of the food product, but the most of these cases are the little men of the industry and not the big manufacturers. There are still many points to be settled as to the chemistry and labeling of certain foods produced by large manufacturers, but in most cases these discussions represent honest differences of opinion between two groups, each of which believes that it is right and is willing to fight for its opinion.

A study of the trend of the times, I believe, will convince most anyone that the big food problems of the next decade will revolve around economic conditions rather than chemical or dietetic features. The matter of production and distribution will take the attention rather than the composition of foods, not because the matter of composition is not of importance, but because the most critical period of this phase of the food problem has passed, and much of the work of educating the public to the true character of food is so well under way that it will go on without the same amount of fighting and the wholesale prosecutions that characterized the initial efforts.

To solve the great economic problems of the day in regard to the food situation will require action by the Federal Government rather than action by each of the states. The control and regulation of the situation must be centralized.

The war has taught us many things and among these is the lesson of the inadequacy of our old methods of governmental supervision and control in meeting the new conditions. At the close of the war business and governmental agencies alike recognized the fact that if America was to take her proper place in the export field old laws had to be changed and new laws passed which would give the business men greater freedom of action. The result of this view was the passage of the Lever Bill, which gave business men the right to combine for export purposes—a right that the old laws denied them. And now if the food producers are to meet the demands which new conditions are forcing upon them we must have a change in our regulatory system and the hampering methods of state legislatures must be done away with in favor of a clear-cut, well-defined Federal statute that will protect the public from dishonest producers and at the same time give greater freedom to the production and distribution of honestly produced food by honest producers. *W. G. D.*

## "B. A. I." 35 Years Old

May 29 was the thirty-fifth birthday of the Bureau of Animal Industry of the United States Department of Agriculture. When the bureau began operations in 1884 it had a staff of less than 20 employes; now it has more than 5,200 working through 13 divisions and offices. The bureau works to upbuild the live stock industry generally and to lay a foundation for its development along permanent lines. Ninety per cent of its employes are in the field carrying on organized inspection and extension work in every state in the Union and in some foreign countries. Included in the major work of the bureau is eradication of animal diseases, such as tuberculosis, hog cholera, scabies and the fever carried by the cattle tick and some of its most effective work has been done in stamping out epidemics of the dangerous scourge, foot and mouth disease. It conducts Federal meat inspection, investigates methods of breeding and handling all kinds of live stock and poultry and administers Federal quarantines against infectious animal diseases.

## Stabilizing the Bean Market

A few weeks ago the California lima bean market was a hubbub of confusion. Part of the crop was in the hands of local dealers, some was held by independent growers, while another portion was in the control of the Bean Growers' Exchange. The prices were low and eastern buyers were reluctant to purchase because of the unstable market. Recently a combination has been effected so that the dealers, growers and exchange have centralized in a commercial agency, and already have marketed 200,000 bags of the 1918 crop. As a consequence of stabilizing the bean market by combination the prospects are that the lima bean crop of California for 1919 will be about normal as planting of the new crop is largely determined by the manner in which the old crop is merchandized, according to the United States Department of Agriculture. One-third of the 1918 crop has been sold at $7 a bag for a total of $4,200,000.

# New York Commissioner Talks on Market Problems

## Tells Agriculturalists Some of the Fundamental Principles Underlying His Work and Reasons for Many of the Market Troubles

*Bulletin Issued by Commissioner Porter of New York*

SOME of the matters that are forcing themselves upon our attention at the present time, and which concern not only dwellers in the city, but those who live in rural districts, are questions, it seems to me, primarily belonging to the domain of economics. They are, in a large sense of the word, marketing problems; and if we are to attempt any solution of these vexed questions, it should be, it seems to me, after we have become possessed of the essential facts and the underlying principles that dominate the science of economics as applied to marketing. We speak glibly enough of the science of marketing. There is no such thing today as a scientific knowledge of marketing operations. It is one of those matters that has been delayed as to investigation and decision. There is, perhaps, no other subject of such vital interest to all the people of our nation as that which pertains to the marketing question, and it is not strange that this should be so. In the early days marketing for the farmer was a simple matter; he was sufficient unto himself and for his family. He supplied his own wants; his purchases were few. There need be, in those early days, no particular investigation to determine facts. He was, then, really an independent farmer, because he could live his own life in his own way and care little for the outside world. But as time has gone on and our country has developed and systems of distribution have grown up, the farmer has lost his former independence and is now one of the most dependent of mankind.

So the simple form of bartering has given way today to a most complex system of the distribution of commodities. When we consider that commodities traded and dealt in are the surpluses of millions of farmers in this country gathered together little by little, made up of a great diversity of products, differing in quality, differing in value, in various kinds of packages, grown at certain seasons in one part of the country and another time in other parts of the country; that the harvests are generally concentrated over a few months of time, and that all of these commodities must be gathered together in some way and then redistributed among the millions of consumers, we get some idea of the vastness and difficulty of the problem of marketing.

In the largest sense of the word, marketing is a part of the costs of production, because to the consumer the cost of production on the farm—which may be said, in a general way, to be indicated by the price paid to the farmer—is increased to the consumer by the cost of distribution, or the real cost of marketing. Those two costs added together are the real costs of marketing, and they apply with ever-increasing force to the purse of the consumer.

There have been in the past, and there are now, a great many statements made by men interested in this problem—made, no doubt, honestly and sincerely, but without adequate knowledge of the questions under consideration and, therefore, misleading in character and failing to arrive at any satisfactory or legitimate conclusion. So this morning I want to take up for discussion a few of the things that pertain to marketing and to throw such light as I may be able upon some of the difficulties with which we are confronted. First of all I want to say just a word concerning what the State Department of Foods and Markets—the head of which I happen to be at the present time—is trying to do. We have only had about six months to get our machinery in operation, and in the face of the great field to be covered and the difficulty of the problems to be met, we have gone as far and as fast as judgment dictated.

First, as to the problems in New York City, which concern the activities particularly of the New York office. New York City today, as we all know, is the greatest city in the world. Its problems are the greatest and the difficulty of solving marketing problems in such an enormous metropolis as New York is almost beyond comprehension. Fourteen hundred carloads of commodities reach New York every day at 127 terminals. They are taken care of by 4,000 wholesale distributors and by 60,000 other distributors more or less retail in character. Four hundred thousand men are employed in the distribution of these commodities and they are distributed among eight to ten million consumers. And this great quantity of food must be taken care of with regularity and with speed every twenty-four hours.

The question in New York, as it is elsewhere, is a better distribution of food. How is that to be achieved? The wholesale business of New York, or the wholesale quarters, are those located downtown near the wharves, near Fourteenth street, in the Bronx, in Harlem, and at Wallabout Bay. It is a question whether some of these wholesale centers are at present adequately located. In fact, we know they are not. But around these centers, and particularly in the lower part of the town, are gathered all the wholesale markets for all commodities, and the tendency of all these interests is to gather together in some one place. New York, as we know, was built on the theory that the traffic would be across town, and so the avenues occurred at intervals of long blocks. The traffic was not supposed, in those days, to run north and south. The result is a few avenues in that great town and a clogging of the ways, so that all these goods have to be transported up and down the very few avenues that New York affords running north and south.

There is a waste undoubtedly in the methods of distribution. And yet when we come to a study of the system that exists, the quantities of food that are handled, the disadvantages under which these commercial men work, we are forced to the conclusion, no matter what we may have heard as to the general inefficiency of the methods employed—if we are honest in our conclusions—it seems to me we are forced to say that in general the system now in vogue in New York is wonderfully efficient. I do not mean to say by that, or to be understood, that there are no weaknesses or defects to be remedied. There are, and many of them, and the problem before us is how to remedy those defects, but not a problem of how, by violent revolution, to overturn and to remove one system entirely and substitute another for it. It is a question of taking up one matter at a time and solving that particular problem step by step, until we have a general betterment of conditions existing. That, it seems to me, is the question before us.

I have established in New York a market news report, so far as the appropriation at my disposal would allow. I am issuing that report weekly, and it has grown now so that it includes the leading commodities on sale in the New York markets. That report is sent to the master and secretary of every grange in the state, the president and secretary of every dairymen's league in the state, to every farm bureau, to all co-operative associations and to all farmers who desire to receive a copy of it. I hope, in the near future, to be able to publish a semi-weekly report and, if possible, after that, a daily report for the benefit of the farmers of the state.

I have established also a service of grievances. What the farmer in the country dreads most and, perhaps, has the most fear of, is what is to befall the goods that he ships to an unknown party in New York. When they leave his hands in the car in the country, as a general rule, he has no knowledge of the man to whom they are consigned; he has never seen him and knows very little about him, and he feels that this man at the other end of the line has the absolute power to dispose of them as he will, make such report as he pleases, and return such amount of money as he sees fit to him. He wonders whether the honesty of that man is beyond reproach. And I am sorry to say that sometimes the honesty of the gentleman in question has not been what it should be. Such a condition of affairs, from a business standpoint, ought not to be tolerated. No man should be obliged to send the stuff he has for sale to another man without a clear knowledge of the conditions surrounding the transaction, and some means of information, from a disinterested source, as to what happens to those goods when they reach New York or any other center of distribution. So I am sending out notices to the farmers of the state and all other shippers for that matter, that if they will send to my New York office an account of the transaction, the date of its shipment, number of the car, character of the goods, the quality, the name of the man to whom they are consigned and all the data that go with the shipment of the particular commodity involved, I will have an inspector present when those goods arrive to determine their condition, to find out what is done with them, to know what they are sold for, to ascertain the date of sale, and to be ready to make a report on that transaction to the shipper in the country if he desires it.

That is one of the things that perhaps you know has been advocated from time to time as a matter of federal or state supervision, and it seems to me I may add, in passing, that it is eminently desirable that some method of inspection, either by the state or the nation, should be devised for the benefit of the shippers of commodities to New York.

I have established a bureau of transportation, which investigates the non-arrival of cars when demanded by the shippers, delay in transit, mishandling of goods—all those matters that pertain to transportation, for which I have a specially trained corps of inspectors.

I have established a bureau of service with the information bureau, which is prepared to answer all inquiries that farmers may make. For example, if a man has cabbage in the state and he writes in to know when he shall ship the cabbage, what kind of cabbage should be sent, what men in New York are handling cabbage, and all those questions which pertain to that particular commodity. All those questions, and other similar, my men in New York are now prepared to answer.

I might say in regard to market reports—to run a little ahead of my story—that the question of furnishing an adequate system of market reporting is one of the vexing problems of the systems existing. Market reporting has been a thorn in the flesh for years. It has been done in various ways. It has been done by committees of exchanges: it has been done by making a record of sales; it has been done by committee meetings behind closed doors, and it has been done by independent and private reporters of markets. The objections to sales lists made up by commission houses are natural enough, that they are the most interested parties. If they are wholesalers it is to their interest that commodities should be underquoted. If they are jobbers selling to retailers, it is to their interest that the prices should be overquoted. And while it does not necessarily follow that self-interest will betray every man into a dishonest statement, the temptation is there and should be removed.

So we come down to the independent reporting of prices current, as they are termed. There we run up against another difficulty—the great and inherent difficulties in the way of getting the tone of the market, the atmosphere of the market, and determining by a sort of sixth sense what the real prices are for that day on a certain commodity. It is no easy thing. It requires as much training and as long experience as any course at any university, and I want to say to you, gentlemen, it is much more strenuous and wearing. So in undertaking to send out a price list of our own it was only after we had obtained men fitted for the situation and had tried them out that we ventured to send out any price list at all.

In regard to New York City I might add just a word, that I am mapping the entire city, dividing it into wards and districts, and that I am putting on this map the exact location of every spot where food is dealt in. These maps are being colored so that in every ward and every district the nationality that inhabits that particular ward is indicated. New York is made up of a lot of little nations, and the food that one nation desires is not the food that another nation desires; if we are to begin a plan for the successful distribution of food in New York the map that I have spoken of is one of the first and essential steps.

To pass from that to a bureau of co-operation: I will only recite the table of contents of my last bulletin, *Foods and Markets*. I haven't time to discuss co-operation; it is a subject by itself. There is a "foreword" in this bulletin from which I quote a line or two:

> Co-operation is the keynote of twentieth century activity. In co-operation with our allies, the world war has been won. Co-operation in the industrial world has led to the successful operation of gigantic enterprises and it has brought about collective bargaining and the improvement of the condition of industrial workers.
>
> Co-operation is the keynote of twentieth century activity. In co-operation there are a large number of enterprises that have been conspicuously successful. The main and ultimate purpose of co-

operation is to make the producer master of his own business. For many weary years he has received the wages of a laborer. The time has come when he may secure the profits that justly belong to him, through a proper grading and marketing of his products. In order to bring this about, the producer must become a business man, and learn how to do business along co-operative lines. The co-operative organization that he creates must be built upon those solid principles of co-operative business effort that experience has proved absolutely reliable.

The contents of this bulletin are as follows:

The A B C of Co-operation.
Why Co-operation Is the One Solution of the Farmer's Problems.
Touchstones for Determining Readiness of Communities for Co-operation.
How Co-operative Associations May Be Incorporated.
Incorporation and Liability.
Specimen Forms of Co-operative Contracts and Rules.
Advantages in Thorough Business organization.
Co-operative Associations Organized by the Division of Foods and Markets.
Sheep Breeders' Co-operative Associations.
The Co-operative Lamb Club.
Associations Incorporated Prior to Passage of Article 13-A.

This will give some idea of what we are trying to do along the line of co-operation.

In regard to the examinations of food in our bureau of food standardization: In co-operation with the United States Department of Agriculture, with its bureau of chemistry at Washington, we are laying out a plan of systematic investigation along certain definite lines of the foods sold in this state and I have already, in a conference with Washington authorities, arranged for co-operation and work with the state and federal inspectors, and with the state and federal laboratories. In the year to come I am confident we shall be able to do much more along the line of investigation and standardization of the foods that we have to buy than has ever been done before.

Now just a word as to markets: There is so much to say about markets that it is hard to determine what points to take up. Let us take up, for example, the country points of sale and the defects. Now the farmer can sell his goods directly to the consumer; he can sell to the country store; he can sell to shippers at his local market place. If he undertakes to sell direct to the consumer in these days it means that he must either establish a connection between himself and certain people in the nearest city or truck his goods in. It is apparent, upon a survey of the situation, that such a method as that is only applicable to a comparatively few farmers. It is impossible for all the farmers surrounding any city to establish points of marketing contact with the consumers in a satisfactory way. That, of course, leads up again to the consideration of so-called farmers' markets, which has been advocated by a great many as one of the main solutions of this marketing problem. Well, let us see how that works out. Let us take, for example, a good sized city of a million or two of people. Let us take New York. Now, only 10 per cent of the food consumed in New York City comes from New York State. To say the least, I was astonished when I discovered that fact. A few years ago I supposed that the farmers of up-state furnished New York City with everything she had, and when I discovered that New New York City was only dependent upon us for 10 per cent I was amazed. But that is a fact.

With all the millions of tons of food that come into New York, what percentage can be brought in by individual farmers so situated that they can meet at some marketing center in New York and then distribute it to the consumer that happens to come? The proportion is so infinitesimal that it would take a row of figures in decimals to indicate it; it is absolutely infinitesimal. When we establish a farmer's market there is the farmer's side to that. He has to leave his home sometimes in the early evening of the night before, and having reached his market and taken his position, if a jobber or retailer comes to his cart or his truck or his wagon and offers him a reasonable price for the entire contents of that truck, the farmer is going to sell at once, because he is making one transaction; he is receiving cash for the entire load; he is relieved of the necessity of staying there until, perhaps, sometimes the next morning; and long before the average consumer thinks of getting out of bed the farmer is on his way home with his entire truckload sold.

As to the consumer: We hear a great deal about the consumer's demanding markets frequented by farmers, for the purpose of selling to the consumer certain kinds of commodities at reduced prices. And there are a great many consumers who cherish that as one of their fondest hopes for the ultimate reduction of retail prices. What does the consumer do about it? The facts of the case are that the consumer does not do anything about it. He talks about it and points out what the advantages of such a project are, but when once a market of that kind has been established it is to other markets that the consumer hies himself with great and increasing speed. He does not go to the farmers' market. Investigation has shown, in several cities, that there are only two classes of people that go to farmers' markets where they have been established. One class is made up of those who go in their automobiles, who have servants at home to do the work, and the other class is made up of the very poor, who come to the market with baskets on their arms. The great middle class, so to speak, for convenience, prefers to go to the corner grocery, to the retail store, because they don't have to neglect their family duties; they haven't servants to leave behind. The grocers have telephones, they have a credit system, they have costly showcases and they have a special delivery which brings the goods to the door any hour or minute the consumer sees fit to demand. So the consumer, as a rule, does not support these markets for the reasons I have enumerated—and one other reason, that the commodities dealt in by the farmers' markets are few in number. They must be. They are limited to the things the farmer raises on his farm in the neighborhood of certain cities, such as beans, sweet corn, potatoes and cabbages. How many consumers would like to throw a bag of potatoes over the shoulder and go home with it? It is a perfectly respectable procedure, but there seems to be in the minds of some a prejudice against it.

Those are some of the reasons why farmers' markets, as such, have not, in these later days, been successful. And while I have enumerated some of the defects, that is no reason why we should not attempt, and attempt strenuously and earnestly, to establish a farmers' market in every locality where we think there is any chance of making it a reasonable success. In small towns through the state—and I am making a survey of every city and town above 2,000—in every one of those towns where it seems to be possible by co-operative effort—that is, by the effort of the consumer on the one hand and the producer on the other—to bring about such an understanding, so that the consumer can have ready access to the market, we are attempting this work. In these smaller towns, which are different in their social conditions sometimes from the larger cities, it seems to me it is possible to bring about a condition of affairs so that markets of that kind will be beneficial to both the producer and the consumer. I believe we ought to try it out, although we know perfectly well that the tendency of these later days is not toward marketing of that sort.

As to prices of farm products: It has been stated that the farmer receives 35 cents on a dollar. Is it true? Is it true that the farmer only receives 35 cents out of every dollar that he has paid for the commodities that he sells? Only 35 cents? Well, true or not, you and I have read that in agricultural papers, and in the daily press, and in magazine articles, by men who are supposed to know. We have read that for years. And we have believed it. I did; I believed it. And I got very hot under the collar about it, too. And I am not sure yet but what that heat was somewhat justified. But as I stated at the beginning of this little discussion, as I have gone into the matter, the statement that the farmer receives only 35 cents out of every dollar is not justified by facts. And it is the facts of the case that we are after. Now it is true that the farmer, for certain commodities, certain of his products, receives only 33⅓ per cent. To give a concrete illustration: Out in Minnesota, where lettuce is raised, only ten miles from Minneapolis, the farmer receives only 33⅓ per cent of the retail price, and it goes through only one middleman. But in butter, figured in butter fat, the farmer receives 77 cents on the dollar; livestock, 58 cents on the dollar; wheat, 90 cents on the dollar.

Those are different figures, and an average estimate of what we receive for all products sold is without weight and without value. The question is, what percentage do we receive for each commodity that we sell? That is the real question before the house. And that brings up again, in passing, the question as to how much the middlemen take away from the farmer. To go back to the lettuce proposition—because most of these perishable commodities have to be sold quickly, a special system is necessary to dispose of them immediately. Such commodities bring the least percentage to the farmer, even though, as in the case of the lettuce, they go through the hands of one middleman, that is, the retailer. The butter sent from Minnesota goes through the hands of four middlemen, including the transportation company, and brings back to the creamery, the original seller, 77 per cent of the butter price. So in general I may say, in passing, that the presence of one or two or more middlemen seems to have very little influence on the final cost to the consumer or the percentage of the price that the farmer receives.

In my studies of this question I have been obliged to go to men much wiser than myself; to retailers and wholesalers, farmers and milk men, and butter men, and wheat men, to find out when and how I could better the situation. The question is, what is to be done? How are you going to do it? And last and most important, who is going to do it? The consumer thinks that somebody, some time, somewhere, somehow, is going to reduce retail price of the articles that he buys. I can tell the consumer that that is never going to be done in any such way as that. It is going to be when the consumer himself rises to his duties; it is when the transportation companies face the difficulties, when the system of commercialism in New York faces the difficulties, and when the producer himself takes hold of it in a scientific way, then we will begin to come to a new era and a new method of distribution of commodities.

It has been said that we are reaching a reconstruction period, when we shall all be made over as to our aspirations, our ambitions and our business methods.

"I don't expect to see much change,"
Said Hiram Green to me;
"We're quite a set and stubborn lot,
We human beings be.
We get our learnin' mighty slow,
And just about the time
A fellow knows what's good for him,
He's gone long past his prime.

The war will change a lot of things,
But I 'low Treadwell Pew
Will slip a couple of bad eggs in
Just like he used to do,
As soon as we lick Germany,
I don't know as I should say
'Twill be a mortal sin, perhaps,
But it's Treadwell's way."

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## New Interpretation on Luxury Tax

According to a new interpretation of the luxury tax, ice cream and soda water drinks are not subject to a tax if carried away and not consumed in the store.

The ruling says: "When ice cream, soft drinks or similar articles of food and drink are sold to be carried away for consumption at place not in proximity to the place of business, such ice cream, soft drinks, food or drink being placed in containers of a kind ordinarily used to convey such article indicated, they are not taxable."

## Sugar Crop Above the Average

In the sugar "campaigns" recently ended the United States has produced an amount of sugar that is estimated by the United States Department of Agriculture's Bureau of Crop Estimates to be over 2,140,000,000 pounds, and this quantity is 25,000,000 pounds above the average of the last six years, beginning with the year before the war began. Having two principal sources of domestic sugar production, beet and cane, the variations of one crop often fit into those of the other so as to give some degree of steadiness to the total of the two. To some extent this happened last year, since the cane sugar crop was 569,000,000 pounds, or 60,000,000 pounds above the six-year average, and the beet sugar crop 1,530,000,000 lbs., or 30,000,000 under the average, while the production of maple sugar, including the sugar equivalent of sirup, was 41,507,000 pounds, or 5,000,000 pounds below the average.

All together the domestic sugar crop is usually about one-quarter of the domestic consumption, the receipts from American possessions about one-quarter, and the imports from foreign countries about one-half. Beet sugar production in the United States has gained rapidly on cane sugar during the last 20 years and permanently exceeded it in 1906-1907, so that it has been about two and three-quarters times the cane sugar crop during the last six years.

To the sugar production may be added that of sirup and honey. It is estimated that the sugar equivalent of the cane sirup of last year is 174,000,000 pounds, and of the sorghum sirup 146,000,000 pounds, while honey amounted to 54,815,000 pounds (carrying forward the census for 1909), not computed into equivalent sugar. Without including corn sirup, for which no estimate is made, the grand total production of beet sugar, cane sugar and sirup, maple sugar and sirup and sorghum sirup, all in terms of sugar and of honey was 2,515,000,000 pounds, a total somewhat above the average of recent years.

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Benjamin Franklin said: "Remember that time is money. He that can earn ten shillings a day by his labor and sits idle one-half that day, though he spends but sixpence during his idleness, he has really spent or thrown away five shillings beside." Make your time and money work. Buy W. S. S.

# The Economic and Dietetic Value of Jams and Jellies

## Methods of Making Preserves Told With Particular Reference to the Work Done in the Large Canning Factories

*By Eleanor Lee Wright*

**Eleanor Lee Wright**

WHAT a few years ago it seems when we think of our freckled-faced brothers climbing in the pantry window to get a generous helping of mother's jam! It was then, too, that a woman who served commercially prepared jams, preserves or jellies on her table was given a mental shrug by her acquaintance. All this has changed for scientific and economic reasons. Who would have ever thought in those old days that the children would have gone as stealthily to the pantry to get all they wanted of commercially-prepared preserves? If our grandmothers had been told such a thing they would not have believed it.

Many housewives and teachers of domestic science are marvelling at the commercially-prepared preserves, jams, jellies and marmalades of today. "How are the delicious fresh-fruit flavor and color maintained and the berries of the preserves kept so whole?"

The answer is: By the proper selection of fruits; expert knowledge of cooking; and modern methods of cooking. Then, too, there is the assurance that nothing is used other than the fresh fruits or berries and pure sugar—no coloring or preservative — no added flavor. If these things are used the fact must be plainly indicated on the label.

There has been a great deal of discussion in regard to the exact differences between the terms "jams," "marmalades" and "preserves." Authorities differ on the subject so that we can make our own definitions.

Some people insist that preserves are the fruits preserved whole. The truth of the matter is that the preserves are prepared so that the fruits are as nearly whole as possible, chiefly differing from canned fruits by the quantity of sugar. Preserves usually have fifty per cent sugar.

Preserves differ from jam, also, in the amount of sugar used as well as the condition of the fruit, in the final product. The fruit in jams are mashed and the quantity of sugar to the amount of fruits is in the ratio of sixty to forty before cooking, while after cooking the ratio is really about sixty-five per cent sugar and thirty-five per cent fruit.

Now how do marmalades differ from either jam or preserves? The French call jams "marmalades." Some people claim that the only marmalade is "orange," but if one should go into the history of the word it would be discovered that the word comes from the term "marmelo," meaning a quince. It is interesting to know that some consider quince marmalade as the real marmalade. The fruit of the quince tree was brought into England even before 1573. In Portugal quince and oranges were cooked together and called "orangdow."

The amount of sugar used in jams and marmalades prepared commercially is the same, and it would seem that the terms apply to the kind of fruit rather than to the method of preparation. The list of marmalades has increased since the advent of grapefruit jam or marmalade. Some people call it jam, but it could well belong to the marmalade class because of the type of the fruit.

The two most popular fruits prepared as preserves are strawberries and raspberries. The method of preparation being practically the same for each.

By careful study of the strawberry, the variety favored for making preserves are, chiefly, the Aroma, grown principally in Michigan. Soil and climate not only determine the flavor, but also the quality of the fruit. Strawberries grown in hot climates ripen too quickly, resulting in a neutral flavor. When the strawberry grows too fast the little sack which surrounds each seed and which contains the volatile oil which determines the flavor of the berry is easily broken and the flavor escapes. The Michigan berry grows slowly and matures evenly, producing a berry rich in its perfection.

A manufacturer who is interested in preparing the best possible grade of preserves prepared them where they are grown in the berry season. After the berries are picked they are hand-stemmed and then passed over a canvas belt and washed by a spray. The belt moves very slowly and the berries are caught in a large receptacle at the end. Before going into this huge utensil an inspector looks over each berry very carefully to see that there are no stems left on them and that all the berries are good.

The berries are then cooked in large copper kettles at the correct temperature for the proper length of time. After they are thoroughly cooked they are placed in cooling kettles and allowed to become cold naturally.

These cooking and cooling processes are usually done on the top floor of the factory, because gravity is the cheapest natural force available in the canning industry. After the fruit is cooled sufficiently it is piped down to the floor below where it is filled into the sterilized glass jars by means of an automatic filler. It is very interesting to see the girl operating the machine. She places the jar on a carrier which carries it into place on the revolving base and by the time it reaches the long carrier which receives it from the filling machine the jar has been filled in the exact amount. The jar is then sealed with a vacuum cap which insure the contents against spoilage—an ineffective seal with this method of closing is readily detected.

The next process is that of sterilization. The jars are run through a long shedlike affair where they are subjected to hot water. They move enough so that they are sterilized the proper length of time.

After the sterilizing process they are labelled and then placed on movable tables and allowed to cool. If they were placed in the cases before cooling the berries would continue to cook for the corrugated paper and wooden box have the same effect as a fireless cooker. Dark preserve would be the result.

Other fruits used for making preserves are Cuthbert red raspberries and black raspberries. Loganberry and blackberry preserves are also found on the market. The methods of manufacture are similar to those of the strawberry.

There is a wider variety of jams than of preserves. Strawberries, black and red raspberries, loganberries, blackberries, grapes, figs, apricots, peaches and pineapples are chief of the group. If one considers orange marmalade as jam, it should be included in the list. Apple butter, too, may be included in the group.

Jams are prepared by nearly the same methods as those used in preparing preserves. The chief difference is that some of the fruits are crushed and there is no special effort made to maintain the wholeness of the fruit. Of course jams are thicker in consistency and a high grade product is viscid and not jelly-like.

Science and commerce has brought to every table year round the most delicious of fruits in a most delectable form—jam and preserves. The economic reasons, too, dietetically speaking, are obvious. Who could prepare delicious fig jams from fresh figs except those who could afford the fig brought to the city markets or live where they are grown? Is there a fruit whose value as a food has as many points in its flavor? The fig has a most wonderful history. It has accompanied man in all his wanderings, the climate permitting. It grew wild in the earliest inhabited countries. It thrives best in tropical and subtropical countries. Because it often bears three edible crops a season, it was once one of the chief foods before the time cereal grains were introduced into general cultivation. Figs were common food in Greece during the time of Plato. At an early date they were carried into Italy and then to Spain and the Gallic section. Its existence in England has been more or less precarious since before 1257.

In this country the fig has long been cultivated in the Gulf States and as far north as North Carolina. In California the production of figs may be looked upon as an established enterprise.

If one has never seen oranges grow on their low-branching, long-lived evergreen trees there is a treat in store. Oranges may be classified in two groups: The sweet or common orange of commerce and the pungent flavored Seville variety used for making marmalades, the whole fruit being used.

The orange is a native of India and southern China. Early Spanish explorers brought it to Florida and South America, where it now flourishes wild in many localities.

The domestic science teacher or dietitian overlooks worth while points when she fails to train her students in the artistic touches—the aesthetic side—to be gained by the use of jams, jellies and preserves. This is, of course, in addition to the dietetic and economic value of these foods. Jellies are prepared from clean, sound, properly matured fresh fruits.

The general processes in preparing all commercial jellies are similar to the steps used in the home prepared product. The fruit is first cooked to a pulp in deep, glass-lined copper kettles and then pressed and strained. Next the juice mixed with sugar is cooked to a jell. The chefs who watch over this final cooking process are highly efficient in judging whether or not the product will jell exactly right. The test is made with a long stick which has a spoonlike attachment.

Have you ever called the attention of your students to the consistency of jelly at the various stages of the cooking process?

The man in a jelly factory who tests the "doneness" of this product notes these stages particularly: First, when the sugar is first dissolved it runs "sirupy" from the ladle; next it "strings," and last, when it is done, it breaks from the ladle in large drops. Any foam which appears during the cooking process is skimmed off. After the jelly has cooked sufficiently it is filled automatically into sterilized tumblers and set aside to cool. Just as a domestic scientist would do—the jelly is sealed with parafine. Then it is capped with a lacquered tin lid and labeled.

One of the important phases of jelly-making taught to students of domestic science is the kinds of fruits containing pectin, the presence of which is so necessary for making jelly. There are the tests, given in the experimental cookery course, which determines the amount of pectin in various fruits. Then, too, conclusions are drawn regarding fruit combinations for good jelly.

The same knowledge is necessary in making commercial jelly. How much good the domestic science teacher is doing by her explanation of scientific reasons for fruit combination jellies!

The apple is used almost entirely for combining with other fruits having little or no pectin. There is another reason for this combination. The flavor. Did you know that apple juice is said to bring out the flavor of other fruit juices?

On the market today is a large variety of jelly. There is apple jelly, crabapple jelly, blackberry, cherry, cranberry, currant, damson plum, grape, lemon, pear, peach, pineapple, plum, quince, raspberry and strawberry.

The advantages of commercial jelly are obvious. There is the wide variety for selection; the assurance that they are prepared from the best possible fruits in the most sanitary ways; prepared scientifically; the time, fuel and labor saving element; they add variety to the diet and are always standard and dependable when purchased from a reliable concern. These virtues apply as well to the jams, preserves and marmalades.

## Suggested Lesson on Commercial Preserves, Jams, Jellies

I. Give a definition for jams, jelly, preserves, marmalades.

II. Where did marmalade originate?

III. Of what fruit was the original marmalade made?

IV. What do the French call "jam"?

V. Suggest six ways for using jams, preserves, jelly.

VI. In what menus would you use them?

VII. In what diets would you use these foods?

VIII. How would you make a convalescents tray attractive by the use of jelly?

IX. Compare the method of preparing home-made and commercial jelly, also preserves.

X. What fruits in your locality are chiefly used for making preserves, jams and jellies?

XI. What ones would you use in the extreme opposite section of this country?

XII. Why have these commercial foods economic value?

(Continued on page 45)

# Secretary Houston Plans Development of Farm Economics

TO carry out the plans of the Department for developing and making more effective its activities relating to farm management and farm economics, including cost of producing agricultural products, farm organization, farm finance and farm relations, land utilization, and farm-life studies, Secretary Houston has recommended to Congress that $611,990 be made available for the prosecution of the work in this field during the fiscal year 1920 and that the name of the Office of Farm Management be changed to Bureau of Farm Management and Farm Economics. This estimate is based upon the program outlined by a committee composed of recognized authorities on farm management and farm economics which made a thorough study of the subject at the request of Secretary Houston.

The task of carrying out the program has been assigned to Dr. H. C. Taylor, who owned and operated a farm in Wisconsin and was head of the Department of Agricultural Economics in the College of Agriculture of the University of Wisconsin prior to his recent appointment as Chief of the Office of Farm Management. The department has also secured the services of Francis W. Peck, of the University of Minnesota to conduct the studies relating to the cost of producing farm products; of Dr. L. C. Gray, of Peabody College, to direct the work relating to land economics, and of Professor C. J. Galpin, of the University of Wisconsin, to supervise farm-life studies. "This is in accordance with and a part of the plan," says Secretary Houston, "to secure some of the best available minds in the country to direct the work relating to farm management and farm economics, and particularly the studies of the cost of production."

### Cost of Production

"Having secured such experts as these to direct the principal activities, I am confident that the work proposed will be executed in a highly satisfactory way and that facts and information of immense value to individual farmers in dealing with their own problems, and also to the nation for its guidance in considering broad agricultural policies, will be secured and made available. I, therefore, earnestly hope that the program will be accepted as outlined and that the appropriations asked for will be provided at the earliest possible moment."

Especial emphasis is to be given studies of the cost of producing farm products and it is proposed to expend approximately $245,000 in developing this important line of work. The results of these investigations will make it possible to analyze the elements of cost and to point out to farmers the best methods to follow. This, it is believed, will lead to the better organization of farms with a view to reducing costs and increasing profits, which in turn will be of benefit both to producer and consumer. Furthermore, these studies will furnish the basis for passing intelligent judgment upon the probable effects of any given legislation or other public activity upon the farmer as a producer and as a citizen.

### Some Projects Under Way

Work on a number of the projects outlined by the committee is now actively under way and preparations are being made for taking up new lines of work as rapidly as possible, the secretary states. Four separate conferences of authorities on specific subjects have been held, and the reports of these conferences have been published.

The object of the investigations relating to farm organization is to develop the economic principles which underlie the management of a farm with a view to secure a maximum profit through a long series of years. The principal topics to be considered are types of farming, size of business, farm plans or layouts, effective use of labor and equipment, intensity of production, and business methods.

Under "Farm Finance and Farm Relations" attention will be directed to credit, insurance and taxation from the standpoint of their influence upon the activities of the farmer.

### To Study Farm Labor

In connection with the farm-labor studies consideration will be given to such matters as trend of population, supply and movement of farm labor, as well as living and housing problems connected with the hired man. The subject of standards of supervision and compensation of farm labor also will be studied.

Agricultural history and geography will involve a study of the trend of agricultural development, the relation of climate, soil, and other geographic conditions to farm enterprises, farm operations, and types of farming.

Land economics (land utilization), dealing with problems which become more acute every year to the farmer and to the Federal and State Governments, will include, according to the recommendations of a special committee, studies of land resources, land values, land ownership and tenancy, land settlement and colonization, and land policies.

### For Better Rural Life

Farm life studies are to be conducted with a view to make living conditions in the home and in the community more satisfactory to the farm family. A special conference on the subject recommended that information be obtained regarding rural-home life; opportunities for social contacts in typical rural communities; relation of educational and religious institutions to farm-life problems; problems relating to geographical population groups, such as the relation of urban and rural populations, shifting of rural populations, and race elements in rural population; social aspects of tenancy and landlordism; rural organizations, their efficiency, scope, causes of success and failure; social aspects of various types of farm labor — the married and unmarried farm hand, seasonal labor, child labor; relation of various forms of disability; social consequences of local disasters due to natural causes; and social consequences of thrift and agencies for promoting thrift.

Demonstration activities (extension work), in cooperation with the States Relations Service, are planned to carry to the farmer on his own farm the facts developed in the farm management and farm economics investigations for "better farming, better business and better living."

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The total annual consumption of milk, per capita, in the United States last year was less than $6, while for liquor it was $32, says Professor R. M. Washburn of the University of Minnesota.

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Buy War Savings Stamps and Thrift Stamps to capitalize yourself and lend money to the Government to finish the war job.

# Packers Reply to Criticisms and Fears Expressed by Colver

## Answer Charges of Food Monopoly Made by Chairman of Federal Trade Commission at Convention of Wholesale Grocers

*In his address delivered to the National Wholesale Grocers' Association at Cincinnati, June 5, William B. Colver, Chairman of the Federal Trade Commission, had the following to say about the Meat Packers:*

AND now something of the contact between the Federal Trade Commission and you, gentlemen.

If you believe what you hear, you are of the opinion that the Federal Trade Commission is a ruthless enemy of American business. If you read the record of the Federal Trade Commission, you will know that this is not true, at all.

You are told that the Federal Trade Commission carries a sword with which it smites American business. I tell you that the Federal Trade Commission carries a shield, which it places over American business whenever a business concern appeals to it against the aggressions and unlawful interferences of some unfair competitor,

Fortunately, or unfortunately, the Federal Trade Commission, not because it desired to, but because it was ordered to do so by the President and the Congress of the United States, found itself required to inquire into the conduct of the great meat packers of the country. It has examined into the operations of those concerns, and has reported what it found. It has brought down the bolts of the Joves of Beef upon its head.

It has found that a meat trust exists. But it finds more than that. It finds that these great concerns are rapidly extending their dominion and control over the whole food supply of the nation, and, as I said months ago, and as I say again, I believe it is only a matter of time, unless the present tendencies are stopped, when these five concerns, or perhaps the one or two of them which may openly or secretly absorb the others, will absolutely dictate to the people of this country, what they shall eat and what they shall pay for what they eat. This development would mean the elimination of those great American business institutions which have been built up to manufacture and prepare the food, other than meat foods, for the nation. It would mean the elimination of you, gentlemen, as distributors. Ask yourselves how long you can exist if those with whom you attempt to compete have the advantage over you of the use of the peddler car and the mixing rule. It would mean, that unfair advantage piled upon unfair advantage can not be met in business competition. It would mean that you are going to be helpless in your own defense. The Federal Trade Commission has, in the public interest, pointed out these things.

We believe that legislation would be wise, patriotic and sound if it limited these great institutions to the field of meat packing and to the manufacture of packing-house by-products.

I read one of Wilson & Company's advertisements, published a few days ago, which described for the delectation of the "Dear Folks" an imaginary dinner at which not only the steak and the lard in the biscuits came from Wilson & Company, but so did the butter, the canned peaches, the olives, the katsup and the coffee. The salt and pepper may have come through the regular channels of food purveying.

Ruthless invasion into unrelated fields is excused on the grounds of "Efficiency." It is not true or it would be reflected in lower prices instead of constantly increasing prices.

Shall we, the people who have just poured out our blood and treasure in France to end the "ruthless efficiency" of the Hun, sit silent while the same commercial Kulture came to its perfect flower in this country?

I know I am tempting the fates when I speak like this. I know as you know that we have powerful enemies who keep up a ceaseless proaganda against the Commission.

But this gives me no concern whatever. The thing I am thinking of is that last month more than six times as many American business houses appealed to the Commission to invoke the aid and protection of the law as on the monthly average appealed to the Commission in the years 1915, 1916 and 1917, and more than twice as many as the average monthly appeals in 1918.

That the Commission proceeds with care when Business complains against Business is evidenced by the fact that more than half of the complaints are dismissed and disposed of without publicity, and further by the fact that, though the actions of the Commission are subject to review by the courts, only four cases have been appealed out of the 780 disposed of.

Our "orders" from American business have increased about 700 per cent in the last three years. It is because the Commission stands, just as American business stands, for fair dealing, honorable competition and common honesty. On that platform we can stand with gentlemen such as you.

## PACKERS REPLY

By F. Edson White, Vice-President of Armour and Company

The charge that there is a trust among the meat packers is not true.

It is a fact that the packers, including Armour and Company, do business upon a large scale, but their growth has been due to the demands of consumers, especially during the war, when it became necessary to enlarge all plants to feed our soldiers. This magnitude of the business makes it possible to operate upon the most economical scale—upon a narrow margin of profit that would be impossible with smaller enterprises. The trend of modern industrial progress is in the direction of large organizations.

It is this economical operation—this efficiency—which is the real basis of criticism of the packing industries. If efficiency and economy are reprehensible, then Armour and Company must plead guilty.

But efficiency and economy, made possible by large organization, are in the interest of both consumers and producers. Destroy this efficiency, impair it to any degree and the consumer would be the first to suffer from higher prices. Likewise the producer would suffer, for the dependable cash market upon which he relies would be disorganized.

A trust, within the meaning of the Federal statutes, is an illegal combination in restraint of trade. No one ever has substantiated this charge in connection with the meat packers for the excellent reason that there is no collusion in the slightest degree in the least thing that pertains to business operation. The nature of the business intensifies competition all along the line—competition in the buying and selling ends—competition in manufacturing processes—in transportation—branch houses—in business practices.

The five big meat packers all happen to be located in the Chicago stock yards district, but there are thirty or forty other meat packers in the same general territory and they are all looking for business. Smaller concerns all over the country get their full share of business. During the hearing several months ago before the congressional committee on interstate and foreign commerce a large number of these smaller packing concerns testified that there was no collusion—no unfair practices on the part of the larger enterprises—in opposition to their business. They also testified that their business had grown and developed. This competition is in the interest of the consumer and the producer.

Recently the newspapers have published an account of an organization of a number of the smaller packing houses into one allied concern for their mutual benefit, but in this the larger plants have no financial interest.

If there were not the keenest competition between the big packers they would have to go out of business, for the profits are the smallest per dollar of sales of any of the large industries. Last year Armour and Company made a profit of one and one-eighth cents on each dollar of sales. Our profit on meat average about a quarter of a cent per pound for 1918. Quick sales, a great volume of business, utilization of by-products that formerly were thrown away—these are what makes it possible for Armour and Company to keep up with the industrial procession and pay good wages to 60,000 employes.

It would be impossible to form a trust among the packing companies even if it were legal. Meat is one of the most perishable of products. It must be sold within a few days after it has been slaughtered. To successfully hold it for higher prices, to limit consumption, to issue it as some products might be issued a little at a time, with an eye on price quotations, would be fatal to business safety. Meat has to be sold frequently at a loss as a result of the competition of other lines of food or on account of interference with transportation agencies.

Armour and Company just now are putting the finishing touches on a new plant at South St. Paul representing an investment of several millions of dollars. If there were a combination of packers, would it not be rather foolish for us to invest all this money, especially when prices for building material and labor are so high? There already is an excellent packing establishment at South St. Paul, but unfortunately it does not buy cattle, hogs and sheep for Armour and Company, nor does it manufacture products for this company, nor does this company have any financial interest in its sales.

Each of the five big packers has branch houses in every large city in the country. Some of them have a greater total number than Armour and Company. Some of them have a smaller number. Each company operates its own branch houses separately and independently of the other companies, and if you think there isn't competition of the most animated sort you should talk to any salesman from any of the companies.

There has been a good deal said of late about the large packers absorbing all the food business of the country. This is manifestly impossible. There are too many producers of food in the United States—too many farmers, stock raisers, vegetable and fruit growers. There is too much independence of thought, of action, to make it in the least practical for any set of men engaged in the same business to control raw material. You might as well say that it would be possible to control the output of the thousands of newspapers of the United States. Agriculture comprises three-fifths or thereabouts of the total industry of the country and food is the chief product of agriculture. To control the food products it first would be necessary to control the producers. No possible combination could be big enough to do it. It would be like trying the drink all the water in the Atlantic ocean.

Armour and Company are more than meat packers. We are food purveyors and while meat packing must always constitute 95 per cent of our business, we feel that it is not only entirely legitimate but in the interest of the consumer and producer to handle other food lines. I can see no more reason why Armour should not carry beans or rice than to say a wholesale grocer should not handle automobile tires, bicycles or hardware. We are handling food lines and by-products of the packing industry because there is a demand from producers and the public for us to handle those lines just the same as the mail order house or the department store or the druggist on the corner, or the grocery store in the next block, handles goods which are in requisition in his neighborhood. It is not an invasion in other fields. It is in response to a legitimate trade demand. Of course, this is competition with wholesale grocers, but if that is wrong you might as well say, as Mr. Armour pointed out in his testimony down in Washington, that it is wrong for the parcel post system to compete with the express companies.

Armour and Company in off seasons of the meat business can use their equipment and sales force to advantage in other lines. This business has grown by degrees, starting in seasons when the supply of live stock was short, as it was for several years prior to the war. We were confronted with one of two things: either to do business at a loss or find some avenue of trade that would keep our equipment and organization in operation. By engaging in these so-called outside lines we were able to keep down our overhead and other expenses of operation. The consumer, of course, gets the benefit. Furthermore, vegetables and fruit growers were continually importuning us to handle certain lines of vegetables and similar products. We can keep down the expense of marketing these products to a minimum and producers and consumers get the benefit.

Armour and Company, in common with other large packing enterprises, operate their own private cars. We have been compelled to operate these cars to obtain efficient service. The entire meat packing industry is dependent upon the effective operation of refrigerator cars. Before these cars were first placed in service a number of years ago the meat packing business was restricted to smoked and pickled meat, principally pork, put up during the cold weather. There was no such thing as fresh beef outside of places close to the odoriferous slaughter houses of that period.

If wholesale grocery competitors will consult traffic sheets they will find that Armour and Company do not possess the slightest advantage in preferred rates as a result of the operation of these private cars.

We pay the same rate for goods transported in these cars that any other shipper pays. We pay the same rate that we would pay if these goods were shipped in cars supplied by the railroads.

The wholesale grocer and jobber has been made the subject of some commiseration because of the apprehension that in the course of time—five years has been the period set by some authorities—he would become extinct. A great many enterprising wholesale grocers are not worrying much over this possibility. They are attending to their business, selling goods—at a profit—and their relations with Armour are perfectly harmonious.

The real facts are the wholesale grocer and jobber are thriving under the competition of the packing industry and the packing industry is thriving under the competition of the wholesale grocer, and it is a good thing for everybody, including the consumer.

In the last eleven years there has been an increase of 1,114 in the exclusively wholesale groceries of this country, or 43 per cent. During that time the population has increased but 18 per cent.

There is no intention on the part of Armour and Company to drive anybody out of business. There is business enough for all of us. The fact that the number of these wholesale grocers has increased from 2,578 in 1907 to 3,692 in 1918 proves that business is extending in that field as it has been advancing in the meat packing industry. There is expansion in all lines of industry, and it is one of the most encouraging signs of the times.

It is our intention to treat our competitors at all times with the utmost fairness, and as has been indicated, our relations with some of the leading wholesale grocery establishments are of the most friendly character.

It is no more possible for Armour and Company or any theoretical combination of meat packers to control prices than it is for the consumer to control prices. In fact, the consumer might control them a great deal more effectively than we could. We do not fix the price of live stock. That is fixed by what the public is willing to pay for its meat. If the public will not buy meat while under the impression that it is too high (as a matter of fact, it is the best food purchase in the market today, quality and food value considered), we cannot pay a price for cattle, hogs or sheep that will represent a loss. At least we cannot do it for any length of time if we expect to continue in business. We have little control over the cost of labor, for our wage scales have been fixed by a mediator acting under authority of the United States Secretary of Labor. Our profit, as we have shown, is the smallest consistent with safety. We have nothing whatever to do with the retail price. That is fixed by the retail merchant and is based, of course, upon his cost of doing business and his profit.

There are a great many foods entering into competition with meat. There are a great many conditions which influence the price of this highly perishable product. A packing company that tried to fix the price of meat or other lines, especially in view of the extensive competition—which extends to home vegetable gardens—would soon go out of business.

The meat packer, by means of large operation, by economies that would be impossible in smaller concerns, by careful management and efficient practices, by eliminating all waste, has built up one of the most useful industries of this country. Anything which will lessen the usefulness of this industry will necessarily fall upon a great many interests. The producer is dependent to a great extent upon the packer for his market, the retailer looks to him to supply the goods that go over his counter and expects prompt service and regular deliveries. The housewife relies upon the packer for much of her daily family food supply and she knows that it will be wholesome, having been produced under the most sanitary conditions and under Government inspection. Many thousands of workmen are furnished employment at wages higher than the average.

It is easy to call the packers a trust, to say that they are controlling the food supply, that they should be deprived of their private cars, that they shall handle nothing but meat products. But what producing, manufacturing and distributing agency can be devised that will take the place of the packers?

What would this country have done without the meat packers during the war? Is it not true that the splendid organization of the packers, their efficient plants and well-conducted systems of distribution—including refrigerator cars—alone made it possible for us to feed our millions of soldiers in the fighting area and in camps in this country, to feed the armies of the allies and the starving people of Europe? Could those who are casting stones at the packers have done as well?

## Why Blame the Pig?

An old farmer and his wife were standing before their pigsty looking at their only pig, when the old lady said: "Say, John, it be our silver wedding tomorrow. Let's kill the pig."

John replied with disgust: "What is the use of murdering the poor pig for what happened twenty-five years ago?"

## More Meat Animals on Farms

Last November the Secretary of Agriculture addressed a statement to the farmers of the nation, in which he said:

"The world will have need particularly of a greater supply than normal of live stock, especially of fats. We should not fail, therefore, to adopt every feasible means of economically increasing our live stock products."

How the farmers are responding to this counsel is shown by a recent report of the Bureau of Crop Estimates, which is based upon reports from about 10,000 reporters. The farm supply of swine, says the report, increased about 18.5 per cent, or about 11,892,000 head, during March, as compared with an increase of about 7.6 per cent, or 4,789,000 head, during March of last year. The supply of cattle increased about 2.8 per cent during March this year and a year ago, but from the standpoint of numbers the increase in March of this year was 1,959,000 head, as compared with 1,846,000 head for the month a year ago.

The sheep supply appears to have increased 11.9 per cent, or 6,394,000 head, in March, as compared with an increase of 7.5 per cent, or 3,696,000 head, in March of last year. From January 1 to April 1 the apparent increase of sheep was 20.5 per cent, or 10,204,000 head, as compared with an increase of 9 per cent, or 4,367,000 head; in the first three months of 1918.

## Texas College Extends Research Work

Extensive investigations into rice culture in Texas are being conducted by the Extension Service of the Texas A. and M. College. Mr. A. H. Price, in charge of the work of experimenting in rice, which is being extended at the request of the rice growers of the state.

## More Food From Irrigation

Prospects throughout the western reclamation belt indicate that the food production records of 1917 and 1918 will probably be eclipsed by those of the current season. Prices of essential foodstuffs are high enough to make it attractive and profitable for farmers to produce on a big scale. Reports indicate the labor supply is abundant and good, although demanding high pay. Credits are not cramped, with the consequence that native farmers are not handicapped in their operations. This is why it looks like a boom year for the rubber-boot farmers of the far West.

## Reports Beet-Sugar Crop of 1918-19

The beet sugar output of the United States for the 1918-19 season, which has just closed, was 764,867 short tons, or 1,529,734,000 pounds. This total is from the final reports made by factories to the Bureau of Crop Estimates, United States Department of Agriculture, and is almost the same as last year (1917-18), when 765,207 tons were produced. The beet sugar production of leading states in 1918-19 was: Colorado, 191,880 tons: Michigan, 132,092; California, 122,795; Utah, 105,794; Nebraska, 63,494: Idaho, 44,682; Ohio, 35,476; Wisconsin, 13,358; other states, 55,297 tons.

The beets from which this sugar was made, the crop grown in 1918, were harvested from 593,887 acres and amounted to 5,890,227 tons, valued at $58,908,000. In 1917 there were 664,797 acres harvested, yielding 5,980,377 tons of beets, valued at $44,192,000.

# How Northern Legislation Is Injuring the South

## In This Article the Relation of Southern Industry to the Margarine Business Is Discussed and the Evil Effects of the Dairyman's Propaganda Is Told

*By Wm. G. Davies.*

THERE is a Biblical warning, the truth of which has been proven over and over again, that "He who lives by the sword shall die by the sword." The idea thus expressed has been tested out by each succeeding generation ever since it was first put into speech and its truth has been proven many times, each time to the confusion and sorrow of those who, in the face of the accumulated evidence, persisted in doubting it.

But the modern, hard-headed business men are wiser than their forebears and most of them have ceased trying to prove a truth to be false. To be sure, in modern vernacular the sword has been changed to a hammer, but the idea is the same, and so thoroughly has it become a part of our modern business system that the first lesson that is driven into the mind of the new salesman, the new advertising man and the new promoter is "Don't knock your competitors' goods."

When the history of business development is written, to the business men who have pushed to the front during the last twenty years will be accorded the high honor of having learned and taught the doctrine of competing by improvement of their own product rather than by seeking to tear down the structure built by a competitor. So thoroughly has this idea been made a principle of modern business that most of our leading publications refuse to permit an advertisement to be printed in their columns which is so worded as to refer in a derogatory or uncomplimentary way to a competitive product. Many of the sales managers, in fact, practically all of the successful ones, refuse to permit their salesmen to sell their product by knocking the goods of another company.

I mentioned in my last article the case of the citrus fruit growers who, when they realized the necessity of creating a much bigger market for their product if they were to exist, started their campaign by compelling their own members to market only good fruit and then, on the basis of the quality of their own product they built their market. There are many other such examples which might be given. One of the most recent volunteers to the ranks of these is the great organization of canners which, regardless of governmental conditions, has established its own laboratories and is establishing its own system of inspection for the purpose of so improving its product that it can be placed before the people of the world with a guarantee of purity and quality that will insure its sale strictly on its own merits regardless of competitive methods of preserving foods which are coming to known.

When such a method is employed by all food-producing concerns and organizations, the bitter, unnecessary legislative fights which have for their object the passage of laws which will be in effect restrictive measures against competitors, will be a thing of the past. Only the pure food and honest advertising laws which will apply with equal force to all food commodities will be necessary to protect the health and well being of the public and to insure to each commodity the right to be sold strictly on its merits.

But "He that lives by the sword shall die by the sword," is still a truth even if those who are at the head of the various dairy organizations still fail to recognize it and I cannot help but hold to the idea that these men, by their failure to take advantage of their position to educate the members of their industry to compete by increasing the quantity and quality of their own product instead of leading them into legislative battle after legislative battle with the idea of making their own position secure by legislatively hampering or destroying competition, are doing more to injure the dairy industry today than all the forces engaged in making and marketing the so-called dairy substitutes. And by adhering to this attitude these men are sharpening the sword which is bound to cut into their own vitals and destroy them as leaders of the country's greatest of all industries.

These dairy industry leaders have succeeded in having many laws passed which place extra taxes on margarine, such as are not born by other food commodities; laws which have denied to the people the right to buy margarine in the same attractive appearance made so by the use of harmless coloring such as is used in butter; laws which have made it hard, yes, almost impossible, for the retailer to sell margarine as he sells other food products, some of which are not as pure and nourishing as margarine; laws which by their wording carry the impression that the margarine manufacturers are fundamentally dishonest, while the reports of state and federal government officials show that there are every year more dairymen convicted of selling adulterated or unclean product than margarine men. But in spite of all of these laws the manufacture and sale of margarine has increased by leaps and bounds each year.

Now there is a very good and substantial reason why the efforts of the dairymen law makers have failed to accomplish the results which they hoped would be accomplished.

As soon as the margarine manufacturers put sanitary safeguards around the making of their product, and as soon as the food chemists decided and announced that the ingredients entering into the product, margarine, were wholesome and nourishing, that minute the question of whether or not margarine should be permitted to be offered for sale as a food ceased to be a problem of chemistry or nutrition and became an economic problem. The question today is not "Does margarine contain as many and as good elements of nutrition and growth as butter?" The question is, "Is there a need for the manufacture and sale of margarine in competition with butter?"

This question has been positively answered by the record of the consumption of margarine and the demand for more of the product in the face of the direful warnings and the unfair legislation of the dairymen.

To repeat some of the things that I have stated before for the sake of emphasis and to make more clear the position of this magazine on the butter and margarine question: Butter is not a whole food any more than is margarine. Although it contains more vitamines, it contains less of some other necessary food elements. The human race could not exist on either one alone and could exist very well without either. Therefore, both products must be placed in the category of other foods which are wholesome, but which are not in themselves whole foods and be permitted the same free market. As long as butter cannot be produced in the quantity and at sufficiently low price to make it an accessible food for all, there must exist an economic reason why margarine should be produced and sold.

The vitamine theory, if it means anything at all, points to the conclusion that whole milk—not a product made from a portion of milk—but *whole milk*—should be used by all. To use the vitamine theory as an argument for butter is a misapplication of it because, while margarine contains some vitamines and butter contains more of the same element, the average per capita consumption of either of these products is so small that the quantity of vitamines consumed in them plays but a very unimportant part in our physical condition.

There is no more justice in placing margarine in a class by itself and taxing it while butter goes free than in placing a tax on meat and trying to force the sale of eggs by leaving eggs tax-free on the grounds that eggs are rich in vitamines and meat is not.

The education of the people of this country has been towards a great variety of foods in the diet. The great middle class eats such a variety of foods that the necessary vitamine elements are taken from many sources and it makes little difference to their physical welfare, whether they eat margarine or butter. It is a matter of economy and taste. But the poor class of people is the class that is vitally concerned. This is the class among whom are the great bulk of underfed and improperly nourished people. These are the people who have not been educated to the value of whole milk in their diet and who, because of the limited amount of money at their command, cannot purchase butter when the price of butter soars.

Restrict or eliminate entirely the production of margarine and the price of butter would automatically rise to a dollar or more a pound with the present shortage of dairy cattle. When butter goes up the dairyman turns more and more milk into butter making so as to get the higher price and the price of whole milk automatically goes up. This result would absolutely deprive the poorer class of people of the most needed article of food, whole milk, unless they could be educated to renounce other forms of food in favor of milk and it will take a long and cleverly managed campaign to do this. It would take many years to accomplish the result, and so far, the dairy people have appeared unwilling to tackle the job.

Now in the North the term, poorer class, almost invariably means the people in the congested districts of our great cities. The rural inhabitants of the North, either the villagers or the farmers are, as a whole in the middle class and are well nourished. In the South, however, the conditions are different. Here we have thousands and thousands of people who live in small villages and in the country and only eke out a bare existence. Hereditary and climatic conditions account, in a measure, for some of the tendency towards shiftlessness encountered so much down there, but that does not tell the whole story.

The real trouble with the South, as every one knows, is that the South has not found itself. It has not found and developed the industries that fit the peculiar conditions of that part of the country; industries that would thrive and absorb the class of people who should be workers, training them to a life of effort and thrift. The establishment and encouragement of such industries would do more in a few years to change the character and habits of the South's poorer class than any amount of education unaccompanied

Production of vegetable oils in the United States.

| Oil | 1912 | 1914 | 1916 | 1917 |
|---|---|---|---|---|
| | Pounds | Pounds | Pounds | Pounds |
| Castor | 5,145,000 | 5,449,000 | 9,302,000 | 6,188,000 |
| Cocoanut | 31,729,000 | 38,272,000 | 104,727,000 | 188,488,000 |
| Coquito | .......... | .......... | 803,000 | .......... |
| Corn | 72,832,000 | 91,810,000 | 109,963,000 | 118,021,000 |
| Cottonseed | 1,435,401,000 | 1,789,777,000 | 1,492,430,000 | 1,343,674,000 |
| Grape seed | 320,000 | 435,000 | 752,000 | 667,000 |
| Linseed | 364,625,000 | 406,669,000 | 464,595,000 | 400,266,000 |
| Mustard seed | 360,000 | 306,000 | 729,000 | 1,098,000 |
| Olive | 966,000 | 1,128,000 | 1,461,000 | 963,000 |
| Palm kernel | 3,200,000 | 402,000 | 8,619,000 | 6,453,000 |
| Peanut | 454,000 | 1,006,000 | 28,534,000 | 50,287,000 |
| Rapeseed | 90,000 | 19,000 | 223,000 | 232,000 |
| Sesame | .......... | 30,000 | 129,000 | 304,000 |
| Shea nut | .......... | .......... | 3,974,000 | 81,000 |
| Soy bean | .......... | 2,764,000 | 9,920,000 | 42,074,000 |
| Sunflower seed | .......... | .......... | .......... | 5,000 |
| All other vegetable oils | 41,000 | 118,000 | 346,000 | 534,000 |
| Total | 1,966,613,000 | 2,338,185,000 | 2,236,507,000 | 2,159,335,000 |

by opportunities to engage in regular, productive work.

Down South there are a number of farseeing, good business men who are greatly concerned with seeing their part of the country developed. They know the conditions. They know what it needs. They should know best what kind of industry it is best suited to the development of the country. These men have decided that, for agricultural and climatic reasons, the development of the vegetable oil industry is one of the things greatly needed down there and this they have started.

The South is, of course, the land of cotton, and consequently, the only part of our country where cotton seed is produced. Cotton seed is the source of our greatest production of vegetable oil. While a large part of the cottonsed oil is hydrogenated and made into lard like compounds to be used in place of lard from animal fats, and some more of it is used as salad or table oil, the greatest market for cottonseed oil is found in the margarine industry.

Peanut oil is another vegetable oil largely used in the manufacture of margarines, and while peanuts may be grown farther north than cotton, the center of this new industry is in the South where climatic and soil conditions favor it.

To give an idea of what this vegetable industry means to the South, let me quote briefly from the government reports of the production. In 1914 there was produced in this country 1,789,777,000 pounds of cottonseed oil. This was the largest production of cottonseed oil ever attained in this country. In 1917 the total production dropped to 1,343,674,000 pounds, due to conditions of the war and other causes. We imported in addition in 1914, 16,016,000 pounds and in 1917, 13,836,000. From our own production we exported in 1914, 216,410,000 lbs. and in 1917 we exported 124,823,000 pounds. This country produces and uses more cottonseed oil than any other vegetable oil.

The peanut oil industry was hardly known in this country a few years ago, but has had the most surprising growth in the last three years. In 1912 our production of peanut oil was only 454,000 pounds. By 1917 it had grown to 50,287,000 pounds in addition to which we imported 27,405,000 pounds.

It can be seen from these figures that these two industries alone mean a good deal to the South and they should be encouraged and fostered by every possible fair means. There are other vegetable oils that can and will be produced down there as soon as the demand for them is created. Discourage this industry in the South and we not only help to hold that section of the country back and stultify its development, but we will be compelled to buy our vegetable oils for our table use and other uses and the by-products which are made at the same time from foreign countries, several of which are trying strenuously to capture this market.

Every blow that is struck at the production and sale of margarines is a blow struck directly at the development of southern industry because the margarine makers are using very much of the vegetable oils made in the South. So that when our dairymen in the North combine to pass legislation which they hope will curtail if not completely stop the sale of margarine, they are injuring the poorer classes in the North by taking from them a cheap, wholesome food product and at the same time putting dairy products beyond their reach, and they are also striking a double blow at the poorer classes in the South by depriving them of a food product and at the same time depriving them of an opportunity to grow with the development of a big new industry.

There has been considerable agitation during the last few years coming largely from the dairy division of the Department of Agriculture and from the dairy division of certain agricultural colleges for a development of the dairy industry in the South. They want to see more cows down South and are urging the formation of cow clubs. All this is good and the move should be kept up but at the same time, the industry that fits the South more perfectly and that has a better start should be encouraged.

The development of the dairy industry in that part of the country must be a very slow process for obvious reasons. In writing this I do not wish to seem to be opposing this move as I do recognize the need of more dairy cows in every section of the country. But with the South's lack of railroad facilities, the scarcity of large cities whose populations would absorb readily large quantities of dairy products and in view of the present conditions of agriculture in the South and the long, hot season when it would be hard to keep dairy products, it does seem that other industries suitable to that region should be first promoted so that conditions which will be conducive to dairy work will be created.

In any event, the dairy industry cannot take the place of the vegetable oil industry in the South and the dairy people of the North should realize that the senseless agitation against margarines and the continuation of it with the aid of law makers who are out principally for votes, will work a positive hardship to the poorer class of people of both the north and the south.

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## "Vinegar Bees" Have Little Value

HOUSEWIVES can avoid being stung by "vinegar bees" or "beer bees" if they will keep in mind that the product advertised under these and other names is only a wild yeast of little value, say the specialists of the Bureau of Chemistry, United States Department of Agriculture. Many inquiries recently received indicate that some enterprising individuals and firms are advertising this wild yeast under the names "vinegar bees," "beer bees," "wine bees," "Australian bees" and various other designations. Extravagant claims are made for the product, and a fancy price out of all proportion to its original cost or actual worth is asked, say the yeast specialists of the department.

In some advertisements which have reached the department the sellers assert that the substance, when mixed with water and molasses or sugar, will produce vinegar, beer or wine. Other promoters go so far as to say that the fermented mixture is beneficial in the treatment of rheumatism and kidney trouble—claims which have no foundation in fact.

The primitive process for making "bees" was to expose to the air a mixture of corn meal and molasses until it became impregnated with wild yeast and bacteria. The ferment so produced was employed locally in making a sort of vinegar or certain alcoholic solutions by adding it to a mixture of water and either brown sugar or molasses which was then allowed to work or ferment.

In the opinion of the department specialists, a product made by catching yeast and bacteria indiscriminately from the air may contain harmful as well as desirable organisms, and the specialists state that great care should be exercised in both the preparation and the use of such a product. In their judgment "bees" is not as well suited for fermentation as is the ordinary yeast cake which can be obtained from any grocer at much less than the fancy price asked for "vinegar bees" and they cannot recommend "bees" at all for making vinegar.

# Busy Bees and Busy Men Build Great Industry About Honey

## Ancient Food Comes to the Front as an Addition to Modern Diet Furnishing Necessary Body Building Elements

THE tremendous growth of the honey industry and the use of honey as a food and as a sweetener of foods illustrates again how the call of humanity for more and better food is bringing about a concentration of effort that in turn is astonishing the world with its results in increasing the supply of foods that have been known since the days of the garden of Eden.

Honey is one of the oldest foods known to man. It was used as a sweetener long before cane sugar was heard of and its delectable flavor and aroma attracted the favorable attention of even the most primitive man and yet it has been only in recent years that an organized effort has been made to produce and market it in such a way that it could be depended upon in quality, flavor and in quantity.

There are many references to honey in the Bible and when the old leader of the Hebrews wanted to paint a particularly alluring picture of the Promised Land to his followers he described the place as a "country flowing with milk and honey." Aristotle, the old Greek philosopher, declared honey to be "dew distilled from the stars and the rainbow." Records of the use of honey are handed down to us from the very earliest civilizations, but its modern history, as a commercial product, dates back less than two decades.

Figures showing the total production of honey for this country are not available at this time, but an idea of the enormous growth of the honey industry in recent years is made apparent by the figures given out by one concern that probably leads in marketing a blended and private branded article. These figures show that in 1910 this company's production of honey had a market value of $44,032.75. In 1915 it had grown to $227,354.79 and in 1918 the total market value of this company's product had reached the astonishing figure of $966,078.89, an increase of about 2,000 per cent in eight years.

It is only a few years ago that honey was a much neglected food product. It was produced in a very limited quantity with little thought of quality and was gathered and marketed in a very haphazard way. The establishment of an apiary, the care of the bees and the gathering and marketing of the product was regarded by the average farmer as a sort of a side issue to be left entirely to the wife or daughter. He enjoyed the rich golden sweet on pancakes or on his bread, but looked upon it as a luxury rather than an essential food.

In those days when honey was marketed it was sold largely in the combs just as it came from the hives. When, however, an ambitious farmer woman or girl wanted to secure a few jars of the extracted product she placed several combs of honey in a bag and hung it to the limb of a tree or on a hook in the kitchen wall with a pan under it to catch the liquid as it seeped from the bag. By twisting the bag slowly the pressure on the combs was increased and the liquid gradually squeezed out.

Of course, this primitive method resulted in an indifferent product, but the worst feature of it was the great waste. Much honey was left in the combs and the combs themselves were destroyed as far as any further use of them in the hives was concerned.

One of the first problems to be solved by the commercial honey producers was the extraction of honey without waste. It was known that any form of press which squeezed the liquid from the comb was wasteful, so the centrifugal extractor was built. When the combs are taken from the hives a sharp knife cuts the caps from the top of the cells. The comb is then placed in the extractor and revolved rapidly. The centrifugal force causes the honey to stream from the combs, but it leaves the combs in practically a perfect condition.

After the honey is all out the comb is ready to be placed back into the hive. Under the old system the bees had to spend over half their time gathering the material and constructing the wax combs, but under the new system they can start to work immediately in filling the cells with honey.

Another big problem which is in the process of being solved is the problem of quantity. It took and is taking a vast amount of literature to convince the agriculturist that bee keeping on a good-sized scale could be made very profitable. But this work is being so well done that already there are many large apiaries scattered about the country and thousands of small ones. Even in the cities where room is scarce bees are being kept and honey produced in goodly quantities.

The quality problem was another one that had to be solved before honey could be extensively marketed. It was found that honey gathered from different plants had different flavors and shades of coloring. The change of seasons bringing with it the change in flora, and the wide territory from which the honey must be gathered if enough would be marketed to make the venture pay caused the honey to vary as to color and flavor and consequently discouraged the purchase by those who liked a particular flavor and who would not be satisfied with just honey.

To standardize the product the producers found that a blend could be made by mixing the honey from various localities by a scientifically worked out formula so that the result was a product of fixed color and flavor.

Now one can go to the store and, by buying the same brand of honey every time, be assured of the same quality, flavor and color.

While honey is not a whole food it is one of the most valuable of energy making foods for the human body and, unlike cane or beet sugar, can be eaten in almost any quantity without serious results. It does not tax the digestive organs because it does not require a change in form before assimilation while sugar must be in invert form like the sugars of grape and honey before it can be admitted to the blood. People who are afflicted with diabetis must refrain from eating the ordinary forms of sugar, but may with impunity satisfy their craving for sweets by eating honey.

Honey contains various inorganic elements so necessary for the well being of the body. Such elements as iron, phosphorous, calcium, potassium, sulphur, sodium, magnesium, manganese, are all found by actual chemical analysis to be present in honey.

In an article by Dr. Fehlman in the Schweizerische Bienenzeitung, condensed by J. A. Heberle, we read, "It is generally known that iron is very important to the human body. It is an important constituent of the red corpuscles. Chlorosis is a sign that the body is suffering from lack of iron. For such persons honey is a very valuable medicine. Why not in such cases eat honey regularly, which supplies the iron in the most assimilable form, instead of artificial iron preparations? Besides iron, manganese seems also to influence favorably the building of blood.

"Phosphoric acid with calcium is the principal constituent of the skeleton, but is also found in the brain and nerves. It is often prescribed in chlorosis and for convalescent persons, especially in preparations which are closely related to the form in which it is present in the brain.

"Calcium is an important part of the skeleton and teeth, but is also found in the soft tissues of the body, and is probably a necessary part in the protoplasm of most cells. It is continually exchanged, and therefore an indispensable part of our food. Calcium and potassium seem also to influence the work of the heart.

"Sugar, although a valuable food, has no trace of inorganic matter. It consists of carbon, hydrogen and oxygen only. Considering the excellent qualities of honey, it should be used far more extensively."

Physicians often prescribe honey in cases of acute indigestion. This demonstrates its superiority to sugar, not only as a food for persons of delicate digestion, but to those whose health is sound. In addition honey has a slight laxative effect.

Experience has shown over and over again that children may eat much honey at meals without the ill effects which would be certain to result from eating the same amount of sugar. We all know how children long for candy. This longing voices a need, and evidences the necessity of sugar in the diet. Eating honey will supply this need and diminish the amount of other sweets eaten.

# Virgin Peanut Oil Wins Favor

COLD-PRESSED virgin peanut oil with a delicious flavor is being made in increasingly large quantities in this country, say the oil specialists of the Bureau of Chemistry, United States Department of Agriculture, who have made a study of the production and conservation of American edible oils. This product has a characteristic flavor, pronounced by many consumers here and abroad to be far more delicious than the oils which are hot pressed and subjected to a necessary refining process, leaving them practically tasteless. Furthermore, many consumers consider that virgin peanut oil compares favorably with virgin olive oil.

Until recently very little virgin peanut oil was made in this country. The American practice has been to cook the peanuts and then subject them while hot to a very high pressure. The oil secured in this way must be submitted to a refining process before it is suitable for the table. Cold-pressed peanut oil, when made from sound sweet nuts, need not be refined.

By the cold-pressed process a larger proportion of the oil of the peanut can be secured for edible purposes than by the hot-pressing method. The hot-pressed oils make a satisfactory oil for both table and cooking purposes by refining, but in the refining process a part of the oil is converted into soap stock, thus going to the soap kettle instead of to the table.

Considerable waste has resulted in the past, because some American mills were pressing part of the shells with the peanut kernels. These shells contain less than one-half per cent of oil, but they readily absorb the oil from the kernels when pressed with them, and come out from the press with from 5 to 7 per cent of oil. As the average pressed cake contains 6 per cent of oil, the shells in the cake from a ton of nuts will absorb 27½ pounds of oil in addition to 2½ pounds they originally contain.

A further economic loss comes when peanuts are pressed with the shells left on, for pressed cake containing shells can not be used for human food. But when blanched kernels from which the shells have been removed are employed in making oil, the cake, which may contain 7 per cent of oil, can be ground into meal and used with wheat, corn and similar starchy flours to form very palatable and highly nutritious cakes, gems and hot breads.

Factories now in operation are producing by the cold-pressing process virgin peanut oil of high quality and excellent flavor.

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One shrewd old farmer who had heard his first lecture on dietetics said if he'd known as much about feeding children as he did about rations for cows and hogs "his family'd have been a heap healthier folks."

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"The borrower is a slave to the lender and the debtor to the creditor. Be frugal and free."—(Benjamin Franklin.) Buy W. S. S.

## A New Use for Soy Beans

Hahto soy beans, introduced from Japan, are excellent for the production of green beans similar to lima and butter beans. About one hundred and fifteen days are required for the bean to make sufficient growth for use as a green vegetable.

Although the Hahto bean is best adapted for growing in the southern states, it may also be successfully produced as a green vegetable during favorable seasons throughout the corn belt, according to specialists of the United States Department of Agriculture. Being a bush variety, it also is adapted for forage production, its yield of green feed or seed being superior to many other varieties on the market. In a dry form the Hahto bean cooks up easier than other varieties and has a better flavor. This bean is to be grown extensively by boys' and girls' gardening clubs in the southern states during the coming season.

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Among the vegetable oils that are made in this country that are made from cotton seed stands in a class by itself with respect to its production in this country. In 1912 it constituted 73 per cent and in 1917, when the cotton crop was unusually short, 61 per cent of the total production.

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Although olive oil as a food and medicinal oil can be replaced very largely by other vegetable oils there are one or two technical uses, wool spinning, for instance, for which no entirely satisfactory substitute has yet been found.

# FOOD NEWS FROM WASHINGTON

## Hearings on Grain Warehouse Regulations

HEARINGS on the proposed rules and regulations for grain warehouses under the United States Warehouse Act will be held in fifteen cities from June 9 to July 5, with final hearings at Washington beginning July 10.

A draft of the proposed rules and regulations has been distributed to interested persons and firms, and together with the Warehouse Act, will form the basis of the discussions. The representations made at the several hearings will be taken into consideration by the Secretary of Agriculture in formulating the final rules and regulations to govern the warehouse service. Those who can not attend the hearings may send written communications in regard to the proposed rules and regulations to the Chief of the Bureau of Markets, Washington, D. C.

All hearings will be presided over by the Chief of the Bureau of Markets, or other representative of that bureau.

The final hearings in Washington will be held in room 411 at 1358 B Street, S. W., beginning at 10 a. m. July 10.

The places and dates of the field hearings are as follows: June 9, at 10 o'clock a. m., Gruenwald Hotel, New Orleans, La.; June 11, at 10 o'clock a. m., Planters Hotel, St. Louis, Mo.; June 13, at 10 o'clock a. m., Sherman Hotel, Kansas City, Mo.; June 14, at 10 o'clock a. m., Fontnelle Hotel, Omaha, Neb.; June 17, at 10 o'clock a. m., Utah Hotel, Salt Lake City, Utah; June 18, at 10 o'clock a. m., Chamber of Commerce, San Francisco, Calif.; June 19, at 10 o'clock a. m., Clyde Hotel, Boise, Idaho; June 21, at 10 o'clock a. m., Multnomah Hotel, Portland, Ore.; June 23, at 10 o'clock a. m., Chamber of Commerce, Spokane, Wash.; June 26, at 10 o'clock a. m., Park Hotel, Great Falls, Mont.; June 28, at 10 o'clock a. m., Commercial Club, Fargo, N. D.; July 1, at 10 o'clock a. m., Dyckman Hotel, Minneapolis, Minn.; July 3, at 10 o'clock a. m., Chamber of Commerce, Indianapolis, Ind.; July 5, at 10 o'clock a. m., Statler Hotel, Buffalo, N. Y.

## More Herds Tuberculosis-Free

The 165 veterinarians of the United States Department of Agriculture who are in the field doing tuberculosis eradication work, together with an equal number of state men, have tested approximately 500 pure-bred herds and found them free from the disease. The owners of these herds have been given an official certificate, stating that they have tuberculosis-free accredited herds. The veterinarians also have given one test to 2,000 herds in preparation for the accredited list. The owners of all these herds, together with the breeds and number in each herd, will be listed in a publication soon to be issued by the department. Figures show that during the past eight months, or since July 1, 1918, 300 accredited herds and 1,000 herds that have passed one test have been added to the list. The veterinarians now have under supervision 1,200 herds of pure-bred cattle and 600 herds of grades which have shown by previous tests that one or more animals have tuberculosis. The publication lists 1,100 owners of grade cattle which have successfully passed the requirements for tuberculosis-free accredited herds. It is estimated that this disease causes an annual loss of $25,000,000.

## Will Investigate Starch Mill Explosion

THE starch mill explosion at Cedar Rapids, Iowa, in which a score of lives and $3,000,000 worth of property were lost, according to early press reports, and which possibly could have been due to a dust explosion, is to be investigated immediately by chemical engineers of the United States Department of Agriculture, who are working to devise appliances and methods for the prevention of disasters in mills where any kind of plant dust is present.

The devices and methods worked out for the prevention of grain dust disasters have proved successful, according to officials of the department's Bureau of Chemistry, and should be applied as soon as possible in all industrial enterprises producing inflammable dusts.

The campaign against grain dust explosions was begun in November, 1917, with a fund provided by the emergency Food Production Act. Since that time not a single fire or explosion of great magnitude has occurred in grain mills or elevators upon which attention has been concentrated.

Previous to the beginning of the campaign there were from one to eight large disasters annually in grain mills or elevators. In the eighteen months preceding the campaign six disastrous dust explosions and fires in mills and elevators alone killed 39 persons, injured 60 others, destroyed 2,500,000 bushels of grain and over $8,000,000 worth of property. Efforts have also been made to reduce fires in cotton gins.

Spend thought before you spend money; you will have more for your money and more money left for your thought. Buy W. S. S.

# Details of Germany's Chemical Trade in the United States

AMERICA'S dependence upon Germany's chemical industries before the war is pointed out in great detail in a census of chemical imports issued recently by the Bureau of Foreign and Domestic Commerce, Department of Commerce, with the co-operation of the American Chemical Society. The purpose of the bulletin is to show to American manufacturers the extent of the domestic markets for the various chemical lines that are now being manufactured in this country for the first time. The compilation was made under the direction of Dr. E. R. Pickrell from original documents at the New York Custom House.

It is shown that nearly $45,000,000 worth of manufactured chemicals were imported into this country in 1914, not counting dyes, which the bureau has covered in a previous bulletin. Of this total more than 40 per cent came from Germany, which was the chief source of supply. These German chemical products included a great many that could not be obtained from other countries because they were patented or because the secret of their successful manufacture was not known in other countries. Some of them, especially the medicinal preparations, were of prime importance, although in dollars and cents the imports do not seem impressive.

A great obstacle in the way of getting the manufacture of these articles started in this country has been the fact that no one knew just how much of a market there was for them, and it was to supply this detailed information that the Bureau of Foreign and Domestic Commerce undertook the compilation of this report. Firms who are obtaining German patents from the Chemical Foundation, recently organized under the direction of the Alien Property Custodian, expect to find in the statistics the facts they need to plan their operations intelligently.

## Chemical Independence

Dr. Bernard C. Hesse, who, in behalf of the American Chemical Society, had an active part in planning the census, comments as follows:

The American public has declared in unmistakable manner its demand that this country be chemically independent; this bulletin tells our chemists the name, the quantity and the value of every chemical article imported into this country in the fiscal year 1913-14 (the last peace year), and also what proportions of each article came from the various countries supplying it. American chemists are, therefore, now and for the first time fully informed and in great detail, concerning the nature and scope of their task. They know the individual articles, the domestic business volume of each, the unit price they have to meet in almost each case and the competing countries. Chemical Foundation, by acquiring all enemy-owned United States patents in these fields has made it possible for American chemists to surmount any obstacles to progress toward chemical independence offered by those patents. No matter how large an export or domestic business our chemists may hereafter build up, if they do not reduce America's avoidable chemical dependence, they will not have met the thoroughly proper demand of our public. Progress in export or domestic business, no matter how great, never can offset any avoidable national chemical dependence. The functional value of articles in our national activities must be the paramount guide in making us chemically independent; mere size or volume of business is no safe index of national importance. A few thousand dollars will supply all the optical glass in all the microscopes, binoculars and the like, used in this country; a few hundred dollars' worth of assorted coal-tar dyes will supply all the needs of the nation's bacteriologists; a few thousand dollars' worth of assorted stabilizers will make the country's total requirements of explosives in peace and in war, safe to handle and to transport; a few thousand dollars' worth of assorted synthetic remedies will care for the needs of the nation's afflicted. Since foreigners succeeded in making us dependent on them for these things it simply can not be that our chemists can not make us independent in those respects.

Yet the task thus concretely set before American chemists is, from a business point of view, not an easy one. Three thousand separate articles of chemical manufacture and of national functional importance, but totalling only about $60,000 in value, or $20 per year on the average for each article, were imported in 1913-14; hundreds of like articles worth less than $5,000 a year apiece were then imported. How can this business be profitably distributed over our many chemical factories without violation of our own long-standing law? America's chemists must solve not only the chemical details of production and application of these many items of manufacture, but also the law problems which obstruct progress. They can solve the former by themselves; whether they can afford to carry them out in competitive commercial practice or not depends upon their success in obtaining proper remedial legislation, and in this they must have sympathetic and effective co-operation from both the public and our lawmakers, but the chemists must take and maintain firm and concrete initiative on both branches of this single problem; anything less than that is bound to lead to disappointment.

In addition to being the chief source of imports of dyes and other coal-tar products, acids, fertilizers and a long list of other chemicals Germany normally supplied this country with large quantities of allied products, such as paints, pigments and varnishes, all of which are shown in detail in the report. Imports by quantity and value of 2,500 products are included, and there is a list of 3,000 other products imported in amounts less than $100 each. For most of these products import statistics are now printed for the first time.

The exact title of the bulletin is, "Chemical and Allied Products Used in the United States," Miscellaneous Series No. 82. Copies can be purchased at 25 cents each from the Superintendent of Documents, Washington, D. C., or from any of the district and co-operative offices of the Bureau of Foreign and Domestic Commerce.

# Food Convention at Syracuse

THE meeting of food manufacturers, wholesale grocers and jobbers of the United States was held at Syracuse on May 15th and 16th and was reported as follows in the Modern Merchant and Grocery World:

Meetings were held in the Mizpah Auditorium. John M. Cross, who was responsible for the calling together of the business men and who acted for the Syracuse Retail Grocers' Association, acted as chairman. At the opening session the attendance was quite small. Hence the formal opening was postponed until 2 o'clock in the afternoon. At this time Mr. John M. Cross made an address outlining the purpose of the meeting as being to create a national association of representatives of the food and grocery industry, with the view of promoting business generally through campaigns, educational and otherwise, the voicing of protests against the intrusion of the packers into the grocery field through the marketing of food products formerly handled by grocers exclusively. He made a very interesting address and suggested that a committee be appointed to prepare a platform of principles and to suggest the line of endeavor that the organization should take up.

At no time during the convention was the attendance very large, few manufacturers of food products being present, and the wholesalers being conspicuous by their absence, only one or two putting in an appearance.

Addresses were made by Mr. Chas. N. Thorpe of New York, William Smedley of Philadelphia and Miss Mildred Warnock of Syracuse, the latter representing the women's interests in the cost of living.

Mr. Smedley suggested that any movement of this kind having but one selfish interest or being aimed at one particular thing, in his judgment, would be inadvisable and would not strike any cord of sympathy between the three interests of the trade. He suggested that if such an organization was to be formed it should keep in mind the interests of the manufacturer, wholesaler, retailer and consumer. If an organization of this kind were formed it might accomplish some good, not otherwise. At this juncture the committee on platform and principles made a report as follows:

That the object of the organization should be to foster and promote any and all proper means of lowering the cost of living, as a result of any illogical and unfair competition, to promote the interests of and to protect the independent manufacturers and retailers from the intrusion of the packers, and from unfair competition, and to conduct a campaign of education, to the end that the public, the persons engaged in the manufacture and sale of food products may be advised and informed of existing conditions.

Persons eligible to membership should consist of food manufacturers or other commodities dealt in by grocers, jobbers in food products and retail grocers.

That the officers should be as follows: President, vice-president, and one vice-president for each state and territory, secretary and treasurer. A board of directors, to consist of seven men, this board to include the present secretary and treasurer and four men selected, one of whom should be a manufacturer, one a jobber, one a retailer and one publicity or advertising man.

There was much discussion pro and con as to the need of an organization of this character and a good many trade grievances were aired. Finally it was agreed to select officers, and this was accomplished with the following results: President, Mr. W. F. Bode, Reid & Murdock, Chicago, Ill.; vice president, Mr. O. J. Moore, Sioux City, Iowa; treasurer, Mr. Clarence J. Cook, Binghamton, N. Y.; secretary, Mr. R. C. Hummel, Syracuse, N. Y.

Board of directors—Floyd Skinner, Omaha, Neb.; J. C. Jones of William Edwards Company, Cleveland, Ohio; William Mapstone, with one vacancy to be filled.

It was agreed that a convention should be called in the middle West in the fall.

A banquet was given at the Hotel Onondego on the night of the 15th, which served as a get-to-gether occasion for those who were present. Nothing of importance resulted from the convention, with the exception of the formation of the organization. As to its future it is a matter of surmise. Most of the officers elected were not present. If they accept election and determine to put influence behind the movement something may come out of the meeting. At any rate, the meeting was perhaps worth all it cost, inasmuch as it did bring together numerous interests in the trade to discuss matters of interest. It is a regrettable fact that the manufacturers and wholesalers who were invited did not put in an appearance, although many of them were represented by proxy.

The name agreed upon for the association is the "National Food Distributors' Association."

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# Launching Another International Show

THE Chicago Board of Trade, desiring to stimulate and improve grain and forage production, offers $10,000 in premiums to exhibitors of grains and hay at the International Live Stock Exposition of Chicago, during the first week in December.

The management of this Exposition promises to stage a Show of Grains and Forage which will in all respects be on a par with the wonderful exhibits of live stock annually assembled at this, "The World's Greatest Live Stock Show."

By having these powerful influences co-operate, an exhibition of grains and forage may be looked for, the equal of which has never been seen anywhere.

A Non-collegiate Live Stock Judging Contest will be staged also at this year's International Live Stock Exposition during the first week in December.

After a due process of elimination at the County and State Fairs the Champion Team from each State will be sent to this, "The World's Greatest Live Stock Show," to compete for grand Champion honors. This interesting feature was added at the earnest solicitation of the United States Department of Agriculture and the Federal Board for Vocational Education. Owing to the keen rivalry that is bound to result the contest will naturally arouse nation-wide interest.

Several scholarships, and many valuable prizes will be awarded to the fortunate contestants.

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Money is eel-like—it takes W. S. S. sand to hold it.

# Important Meeting of Confectioners' Association at Springfield, Mass.

THE Thirty-Sixth Annual Convention of the National Confectioners' Association of the United States was called to order at the Hotel Kimball, Springfield, Mass., at two o'clock p. m. on Wednesday, May 14th, by President R. R. Cleeland.

The convention hall was filled to the limit of its capacity, the records of the Registration Bureau showing that there was a larger number of members and guests in attendance than at any previous convention. This unmistakably indicates the intrests that the members are taking in all questions affecting the confectionery industry.

The address of President Cleeland was given the closest attention.

The report of the Secretary, reviewing the work of the Association for the past twelve months covered the various activities and matters which have received the attention of the officers and committees during that period.

Mr. Hughes expressed his sincere appreciation of the assistance that had been given him by the other officers of the Association and the members of the Executive Committee. He said that he was sincerely thankful for the very generous support that had been given him by the entire membership, and it was because of the support and assistance of the officers and the members that it had been possible for him to accomplish what had been accomplished during the last fiscal year in behalf of the members of the Association.

He referred to his work in connection with the United States Food Administration and reviewed the national legislation affecting the interests of the industry, particularly the War Revenue Act of 1918, which provides a 5 per cent tax on manufacturers' sales of candy.

He said that determined effort would be made by the industry to have this obnoxious and unjust tax repealed, that the Association thru the various retail organizations thruout the United States was circulating petitions to be signed by the public, requesting that the taxes on candy, ice cream and soft drinks be repealed, and that these petitions would be forwarded to Congress for the consideration of the senators and congressmen when the matter would be up for consideration in connection with other legislative matters that will demand the attention of the Sixty-sixth Congress.

Mr. Hughes in his membership report stated that there had been added to the membership one hundred and sixty (160) active and associate members, the total membership at the present time being eight hundred and sixty-two (862). The wonderful growth of the Association during the past few years is ample evidence of the efficiency of the organization and the value of its service to the industry.

Mr. D. D. Thorp, who was elected as First Vice-President of the Association at the first convention in 1884, was unanimously elected an Honorary Member of the Association.

The reports of Mr. V. L. Price, Chairman of the Executive Committee and Mr. Thomas E. Lannen, the General Counsel of the Association, which were received on Thursday, May 15th, were of exceptional interest to those in attendance, and were very much appreciated as indicated by the tremendous applause that greeted both Mr. Lannen and Mr. Price and the conclusion of their reports.

Mr. Price offered many practical suggestions for the consideration of the members which will be of the greatest benefit to them in the problems with which they will be confronted during the reconstruction period, especially those questions related to the cost of manufacture, labor, packages, and similar questions. Mr. Price's report contained so many valuable suggestions that it was the unanimous opinion of those present that it should be printed in pamphlet form and distributed to the members in advance of the publication of the proceedings of the Convention.

Mr. Lannen in his report reviewed in detail the legislative work of the Association, both state and national. He stated that during the past few months forty-three (43) state legislatures had been in session and that thousands of bills had been received by him and carefully examined and reports made thereon to the secretary on such matters as should receive the attention of the Association.

Mr. Lannen gave the members detailed information relative to the rules and regulations that have been established by the Treasury Department in reference to the excise tax on candy and the special taxes on ice-cream and soft drinks.

The report of the Resolutions Committee which is a clearing house for all resolutions which are to be submitted for the consideration of the Convention, was received on Thursday afternoon, May 15th.

Resolutions recommended by the Committee and which were adopted by the Convention included the adoption of a uniform cost accounting system under the direction of the Executive Committee, which could be adapted to the needs of the various members of the Association in determining the cost of their products:

Authorizing the Executive Committee to designate one week next year to be known as "Candy Week";

A resolution extending the thanks of the Association to the Manufacturing Confectioners' Alliance of London, England, for the resolution that was adopted at the First National Sugar, Confectionery and Chocolate Convention held in London, England, on April 2nd, in which resolution members of the Alliance extended their cordial and friendly greetings to the members of the National Confectioners' Association;

A resolution endorsing the Stephens Bill, the purpose of which is to provide by law for the privilege to the individual manufacturer of establishing the re-sale price of his product when said product is sold by him under a trademark or a trade name; at the request of the Treasury Department;

A resolution recommending that the members use their efforts in promoting amongst their employees the sale of thrift stamps and the forming of thrift societies;

A resolution authorizing the Executive Committee to prepare and have introduced to the various State Legislatures and to the United States Congress proper laws relating to the standardizing, the purity and wholesomeness of candy and setting forth the conditions under which candy should be manufactured, packed and displayed.

The most important resolution that received the consideration of the Convention was that relating to

(Continued on page 47)

# President R. R. Cleeland's Address Before National Confectioners' Ass'n at Thirty-Sixth Annual Convention

ONE of the duties prescribed for your president by the constitution is to render a written report at the annual meeting. Were I to follow the "letter of the law" it would be necessary for me to deal in generalities only or to trespass upon the rights of our esteemed executives Mr. Price and Mr. Hughes, whose reports you are looking forward to with keen anticipation.

But I am not going to trespass. By your presence here you give me a subject upon which I can speak to you and upon which I have prior claim. Yet I cannot hope to find words to adequately express to you what my heart feels.

The message I bring is WELCOME.

There is a significance in your presence here from the standpoint of the industry. New England was perhaps the cradle of the candy business. We stand today upon the threshold of a new era.

During three-quarters of a century we have experienced and put behind us the "growing pains" that every healthy youngster is subject to. Highly developed machinery has displaced the simple appliances of the old order. Chemical laboratories test our materials. Experts in sanitation create for us conditions under which our products are manufactured that are beyond criticism.

Cost systems have superceded the rule of thumb. You and I stand forth today as manufacturers of a product that has dignity and merit and is recognized as worthy of place among the necessary commodities manufactured in this country.

In other words, we are mechanically right. Our ship is sound and seaworthy. Our progress now depends upon the way in which we navigate it.

Perhaps these words of Daniel Webster will complete the analogy. He said, "When the mariner has been tossed for many days in thick weather on an unknown sea, he naturally avails himself of the first pause of the storm, the earliest glance of the sun, to take his latitude and ascertain how far the elements have driven him from his true course."

Gentlemen, I believe we are at the "first pause." We have been buffeted about by unusual conditions. Demands upon us have been greater than we have been able to supply. At the moment supply is greater than demand. We have time to think.

Fundamental laws will not be denied.

The force of gravity is pulling just as hard in spite of the fact that a balloon rises. Sooner or later the temporary force yields to the fundamental, and the balloon comes down.

Business must be conducted according to fundamentals if it is to succeed.

I like to consider this gathering as the annual meeting of the stockholders of a corporation.

We pay our dividends in benefits derived from co-operative competition and the rate varies with the amount of co-operation given. We are about to discuss ways and means by which dividends may be maintained, and, if possible, increased.

What is the outlook?

With your permission I am going to interpose into this report a very informal outline of the situation as it appears to me.

In 1913 the United States was debtor nation to the extent of $5,000,000,000. Today we are a creditor nation of $10,000,000,000 and banker for the world. The wealth of this country in 1913 was $187,739,000,000. During a period of five years we have increased our wealth by more than $62,000,000,000 and today the amount is $250,000,000,000.

To this enormous wealth in gold we are adding enormous wealth created from the soil by bumper crops.

At the close of hostilities hundreds of thousands of square feet of floor space devoted to the production of war materials became idle. Today these factories, highly organized and completely equipped to meet the demands of war, stand ready to meet the demands of peace.

When we consider these facts—the great wealth we possess, the wealth we are creating from the soil and our equipment to convert raw material into the finished products that the world requires, we see in America the market place of the world.

It is the transition period from world war to world peace, especially if it is an extended one, that is potentially dangerous to industry. We must have vision. Prevailing conditions are only temporary. We must not sacrifice future prosperity by false adjustments to meet temporary conditions.

Today American business is marking time. The order to forward, march, will not come until peace has been definitely established, until the congress has demonstrated its purpose and its ability to find the solution of the many vexatious problems that confront us.

Our railroad situation with its monthly deficit of $50,000,000 under Government operation is a typical example of the obstacles that block our progress. Let us hope that in working out this problem the congress may be convinced that the business of the country can safely be administered by the business men; that Government operation is a luxury this country cannot afford.

It seems fair to assume that all industry will continue to return to the Government a larger proportion of its earnings than was the custom in pre-war days. Cost of production will find no relief from a lower scale of wages. In our own case, I believe we should make every effort to keep the scale at the highest possible point. Having gained recognition for our product, let us gain the respect and support of the people by maintaining a high standard of recompense and of working conditions for our employes.

Will lower costs of our raw materials enable us to cut our cost of production? I think not. On the contrary, prices tend rather to rise. From any angle that we choose to consider the situation the result is the same. Our cost of production will remain high.

If you agree with me upon these points I believe you will also agree with my conclusion that to reduce the selling price of our product is a frank admission of inferior quality. We must maintain quality. To do otherwise is unsound. Food value and quality are inseparable. Whether you manufacture penny goods or dollar-the-pound chocolates, they must stand the test of quality. Furthermore, a quality product, manufactured and merchandised by sound business methods is, I believe, an effective deterrent for unattached capital seeking a field for operations.

In closing, gentlemen, I wish to commend to you most heartily the great service rendered during the past year by your executive officers. They have faced many trying situations and solved many difficult problems.

Through their untiring efforts and devotion to duty we have profited much. To each of them we owe a deep debt of gratitude.

Again I wish to extend to each of you the handclasp of welcome and extend to you again the hospitality of the City of Springfield, and when the time comes to wish you Godspeed. May you be as reluctant to leave us as we shall be to have you go. Thank you.

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# H. J. Heinz Dies

AMERICA lost one of its greatest food producers and one of its most interesting food advertisers when H. J. Heinz, founder and head of the H. J. Heinz Co., of Pittsburgh, died on May 14th after an illness of only a few days.

In the long list of advertising catch-phrases which have become familiar to the American people, "Heinz's 57 Varieties" is one of the best known if not the most familiar. When one speaks of pickles the words "57 varieties" is immediately suggested and when one speaks of "57 varieties" Heinze's pickles comes to the mind without an effort.

Although the founder of the great business had passed the three score years and ten mark, he was active, not only in business but in religious and philanthropical work up to within a few days of his death. No matter how pressing his business affairs, Mr. Heinz always found time to give to Sunday School work and at the time of his death was planning to attend a meeting of the World's Sunday School Association in New York.

The story of the company is the life story of Mr. Heinz, one of the most remarkable of business romances. His forbears were persons of official note, as well as producers of good wine, far back in the beginning of the seventeenth century.

His father, Henry Heinz, was born in Kahlstadt, Bavaria, the town and kingdom of those older ancestors, and came to this country in 1840, settled in Pittsburgh and engaged in the making of bricks. In 1843 he married Anna Margaretta Schmitt, who had recently come from Germany, and a little more than a year later a boy was born who was called Henry John, and who was destined to become one of the great figures of the food world.

Removal of the family to Sharpsburg was made in 1850, and the elder Heinz, while continuing the making of bricks, added the business of contracting for the putting of those bricks into building. Meantime, the parents were giving devoted attention to the intellectual development of the boy, and with true thrift, and looking to his future, they had him assist in the cultivation of a garden which was attached to their Sharpsburg home and which later became famous as the foundation for the production of the noted and much advertised varieties of sauces, condiments, etc.

Boy as he was, Henry saw the opportunity to turn an honest penny supplying a want in the matter of table delicacies. He began with horse radish which he dressed in a new way, put it in bottles and peddled it in a basket carried on his arm. Then he used a barrow, and as the product of his garden multiplieid in bulk and variety, a horse and cart became a necessity, and instead of depending on individual sales to families he began to sell to groceries, all of his goods bearing a special mark invented by himself, and making for fame.

The rapid growth of the business of young Heinz, the addition of more and more land to the "garden," the creation of new and good things for the tables, yet more and more land, more space for preparation and putting up of the delicacies in attractive forms, genius in advertising, and then the beginning of the wonderful factory which came to be one of the show places for visitors from every part of the world, demand the space of volumes and which will undoubtedly be written later.

No man could have a finer monument than that wonderful institution in Pittsburgh, with its many branches, in this and other countries, with its model care and accessories of reception rooms, bath rooms for male and female employes.

At the last available census of the Heinz holdings and doings, some time prior to his death, the Pittsburgh establishment had more than 4,000 employes and there were no fewer than 22 acres of floor space; there were a score of branch factories, 71 salting houses, about 40,000 acres of land under cultivation, 40,000 people assisting in harvesting the crops, 45 distributing centers, 400 traveling salesmen in various parts of the world, this and much more from the small beginning of a single room in a little two-story building in the suburban borough of Sharpsburg, which put into shape for the tables of a few, instead of the tens of millions who now use the Heinz product, the horse radish in the little garden to the rear of the house of the father of Mr. Heinz.

At more than a dozen places in the United States, and at many points in foreign countries, gardens were established in the most fertile lands that in the event of the crop failing in one place it would be prolific in another, and, for convenience in shipping, establishments for the preparation and bottling, canning or otherwise preserving the finished product were erected.

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## Booklets to Show Dairy Trend

A series of four booklets, showing where the United States stands in the dairy business in relation to other countries is to be published by the United States Department of Agriculture through the Dairy Division. While based on statistics dating back to 1850, the booklets will not contain tables of figures, but will give information in graphic charts with explanations showing the trend of the various branches of the dairy industry. The first booklet deals with dairy live stock, the second with the butter industry, the third with the cheese industry and the fourth with other dairy products, such as market milk, ice cream and condensed milk. The bulletins also show the development and trend of the industry in the United States and other countries.

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## Yes, I Know

It is not wise to get the medicine habit. Let the doctor say when you need medicine and also let him do the prescribing. A blacksmith would not know much about repairing a watch; and the average layman knows very little about treating himself when he is sick.

# Why Do Eggs Cost So Much?

## The Old Law of Supply and Demand Still Controls the Market; Says Commissioner Porter

THE housewife when she goes to market, or calls up her grocer on the telephone and purchases a dozen eggs, either indulges in a mental tirade against the whole tribe of producers, middlemen and retailers, or submits to "being done" with what grace she can muster.

"Fifty cents a dozen for eggs at this time of year, when every hen is laying her head off!! It's nothing but profiteering. Of course, I shall have to pay it, etc."

Before the war the price of eggs in May and June ranged in the neighborhood of thirty-six to forty cents a dozen; today forty-five to sixty cents comes nearer the mark. This is an advance of about thirty per cent, taking thirty-eight and forty-seven cents as the mean in both cases. What is the reason for this advance? Commissioner Porter of the New York Division of Foods and Markets has made an extensive investigation into the high cost of eggs and finds at this time while receipts are heavy, the consumption is equally as great, thus there is no-over supply and therefore prices are unusually high. Moreover, exporters are buying all the eggs they can according to the space they are allowed from the shipping interests and prices with these shippers is a secondary consideration, so great is the demand for eggs in Europe. Then the city consumption is just as great, if not greater than ever on account of the tremendous influx of people, going there to meet relatives returning from Europe.

The cold storage merchants are also putting away eggs believing that the price next winter will warrant their doing so even at the price they are compelled to pay.

Of course, many people object to the cold storage merchants buying up eggs at this season, but a little thought will convince them that the merchants who buy eggs to hold are playing an important part in stabilizing prices.

Now take for a moment the poultry raiser's side of the question. In 1913, it cost him $1.00 to feed a hen averaging one hundred eight eggs a year; labor added forty-five cents more, and the crating, express and delivery charges another cent per egg before they were safely in the hands of the groceryman. Against this total charge of $2.62 he has a manure credit of twenty cents bringing his product cost per hen down to $2.43, or twenty-seven cents per dozen. In 1919, his feed cost advanced to $2.50 per hen, his labor to ninety cents and crating, delivery, etc., to $1.35. Against this total of $4.75 his manure credit, now fifty cents, brings down the cost per dozen to forty-seven cents in round numbers.

The fact that it costs the poultry raiser forty-seven cents to deliver a dozen eggs in New York City doesn't necessarily mean that he gets that price, for he doesn't in many cases. This is due largely to the fact that he keeps no account of his expenses and sells without knowing his production cost.

So one may go through the entire list of food commodities and find in almost every case a sound substantial reason for the advance in price. That there will be any marked reduction in prices within the near future is doubtful, at least the lesson of economy may prove well worth the added expense. In fact, it has been proved by those who have tried it, that the saving effected by cutting down waste and careful buying will nearly offset the high cost of foods.

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## Use Corn Cobs and Save Food Products

A big Middle-West hominy plant is to install on a large scale the process for the manufacture of corncob adhesive developed by the United States Department of Agriculture. This adhesive, a dark brown, gummy substance, is said to be suitable for use in making fiber board and paper boxes, bill posting, labeling, and wherever a colorless adhesive is not required. The process of manufacture is simple and the yield is large, the grade A adhesive amounting to as much as 45 per cent by weight of the corncobs, and the grade B to as much as 30 per cent additional. If this material should replace all other adhesives, enough could be manufactured from 3 per cent of the corncobs produced in the United States to meet the demand. Use of this substance in place of starch, dextrine, and flour paste would make possible an enormous saving of these foodstuffs.

Corncobs have always been one of the great waste products of American agriculture, yet the chemists of the Department of Agriculture have proved that practically the entire cob can be converted into valuable substances. About 37 per cent, by weight, of the cob, may be converted into crystalline glucose. The cellulose remaining after the adhesives are removed is practically a pure product, very absorbent, and might be used for a number of purposes. Alcohol can be manufactured by fermentation of the corncob glucose. A certain amount of sugar may be obtained from the cobs. About 2.5 per cent by weight of acetic acid is recovered as a by-product in the manufacture of the corncob adhesive. Whether it will prove profitable to recover all of the by-products in the manufacture of adhesives can only be determined by commercial development.

## Storage Holdings of Butter and Eggs

The monthly report of the Bureau of Markets, Department of Agriculture, show cold storage holdings of creamery butter and case eggs on May 15, 1919, as follows:

The 314 storages that reported creamery butter showed total stocks of 12,481,556 pounds.

The 300 storages that reported for May 15th this year and last showed present holdings of 12,381,381 pounds, compared with 8,090,769 pounds last year, an increase of 53 per cent.

The 412 storages that reported case eggs showed total stocks of 4,555,633 cases.

The 407 storages that reported for May 15th, this year and last, show present holdings of 4,546,929 cases, compared with 4,174,720 cases last year, an increase of 8.9 per cent.

How Big Business Benefits You

ARMOUR and Company grew to be a great business institution by saving the things that were thrown away on the farm.

Pig bristles on the farm are worthless. Through our methods they are utilized in brush-making. In the same way every item is used in some way. Nothing is thrown away. Even the hoofs and bones are turned to commercial use.

Each of these products is useful, adds something to life, health or comfort.

EDIBLE PORK PRODUCTS

Loins
Shoulders
Tenderloins
Pork Tips
Spare Ribs
Hocks
Trimmed Neck Bones
Boston Style Butts
Cola Butts
Blade Butts
Neck Ribs
Ham Butts
Rough Sides
Hams
Tails
Kidneys
Snouts
Brains
Heads
Slip Bones
Sweetbreads
Feet
Ears
Livers
Heart
Neck Fat
Melts
Tongue
Back Bones
Knuckles
Hearts

INEDIBLE

Stearin
Lard Oil
Grease
Glue
Tankage
Leather
Bone Charcoal
Phosphate of Lime
Granulated Bone
Blood Meal
Meat Meal
Curled Hair
Bone Flour
Covers for Glass Stoppers
Lard Containers
Sausage Casings
Bristles for Brushes

The farmer shares in the returns from all these products. If it were not for the size of this organization and the facilities for transforming every usable ounce of the hog, the packer would either have to charge the public more for pork or buy hogs from the grower at a lower figure.

With large volume it becomes possible to make the heavy investments in machinery and equipment necessary to develop new processes and new products. Often it costs hundreds of thousands of dollars in research and experiment before a single pound of some new product can successfully be put upon the market. Such preliminary work is usually beyond the scope of institutions which lack these facilities.

You can continue to enjoy this service and aid in extending it still further by serving Armour Oval Label foods on your table.

ARMOUR AND COMPANY

2920

## Stabilization of Prices in Canada

[*Consul Felix S. S. Johnson, Kingston, Ontario.*]

The Canadian Trade Commission has just made known the results of their investigation on present trade conditions. It is the opinion of the commission that no immediate drop in general prices can take place in Canada. Every possible effort is being put forth to urge a stabilization of prices to restore confidence in the domestic market, and the commission has suggested that wherever possible it would be wise to undertake buying now. Retail stocks are low and a large number of merchants are "holding off" in the hope that there will be a general slump.

From the returns already made to the commission it appears that the Atlantic producers are able to fill large orders for choice grade split herrings and cod at very favorable prices; New Brunswick packers have quantities of the small herrings prepared as sardines, and there is a considerable quantity of chum and salmon available on the British Columbia market.

Wheat flour can now be supplied in unlimited quantities at prices favorable to purchasers, and there are large stocks of oatmeal and rolled oats, as well as dessicated vegetables in cans stored within Canada. Before the war Canada regularly imported large quantities of beans of all sorts, but owing to the very large production last year there are now some 2,500,000 bushels available for export.

## A New Drying Process

With parts of the world facing a serious shortage of food, incalculable benefit to mankind is seen in the perfection at Columbia University of a new drying process by which it is possible to keep meats and fish almost indefinitely without refrigeration. The process consists merely in drying the food in a vacuum, packing it in cloth sacks and when ready for consumption soaking it in water.

Research work was begun more than a year ago at the Harriman Laboratories of Roosevelt Hospital by Dr. K. G. Falk and Dr. E. M. Frankel. The tests were transferred to Columbia, and the process brought to perfection with the co-operation of Dr. Ralph H. McKee, professor of chemical engineering.

Dr. J. R. Mohler, head of the Bureau of Animal Industry, Washington, commenting on the new process thought that it would not greatly take the place of refrigeration. It would conserve space, however, by reducing the water content.

## Chicago to Have Market Bureau

THE city of Chicago is to have a Bureau of Foods, Markets and Farm Products if the ordinance which has been prepared and voted out of committee is passed by the city council.

The provisions of the ordinance makes this bureau a separate division of the Department of Health with a Director at the head who shall be appointed by the Commissioner of Health after competitive examinations conducted by the Civil Service Commission. A committee of eight citizens, at least five of whom represent consumers and two of this five women, will be appointed by the Mayor to serve as an advisory board without compensation. The salary of the Director will be $5,000 per year.

The duties of the new Bureau will be those usual in such cases, namely, to study the economic conditions of food in the city and take such steps as are necessary to reduce the cost of living, cut out waste, etc.

# JUDGMENTS under the FOOD and DRUGS ACT

## Cider and Vinegar

**6310. Adulteration and Misbranding of so-called Cider.**

Adulteration was alleged as article contained saccharin, substituted for sugar, substance prepared from fermented apple product and starch sugar solution was substituted, also contained carmel coloring and added poisons. Misbranding was found as label guaranteed contents to be made from apples fortified with grape sugar and was non-alcoholic. May 14th defendants pleaded guilty and paid $40 fine.

**6335. Adulteration and Misbranding of Vinegar.**

Adulteration was found as dilute acetic acid was mixed and substituted in part for pure cider vinegar. Misbranding was charged as label read Pure Cider Vinegar, and in truth was not, but consisted in part of distilled vinegar. Feb. 22, 1918, court ordered product destroyed.

**6346. Adulteration and Misbranding of Vinegar.**

This was found adulterated as water had been mixed and dilute acetic acid and substituted for pure apple cidar vinegar. Misbranding was charged as it was sold as pure cidar vinegar, and in truth was not, but was an artificially colored product composed of dilute acetic acid and added water. June 21, 1917, defendant pleaded guilty and was fined $40.

## Eggs

**6303. Adulteration of Eggs.**

Eggs were found to be adulterated as they consisted in part of a filthy, decomposed or putrid animal or vegetable substance. Aug. 3, 1918, defendant pleaded guilty and paid $50 fine.

**6341. Adulteration of Eggs.**

Substantially the same as 6303.

**6342. Adulteration of Eggs.**

Substantially the same as 6303. Feb. 1, 1918, pleaded guilty and fined $10.

## Feed

**6315. Misbranding of Cottonseed Meal.**

Label read contents consist of 38.62 to 43 per cent protein and from 8 to 12 per cent of fiber, and in truth contained less than 38.62 per cent protein and more than 12 per cent fiber. Jan. 29, 1918, defendant company pleaded guilty and paid $100 fine.

**6323. Misbranding of Cottonseed Meal and Cake.**

This was alleged misbranded as label read contents contains not less than 41 per cent protein, 7 per cent of oil or fat and 12 per cent crude fiber, but in truth contained less protein and oil or fat and more crude fiber than was declared on label. July 5, 1918, company pleaded guilty and paid $25 costs.

**6326. Misbranding of Cottonseed Meal or Cake.**

Substantially the same as 6315.

**6329. Misbranding of Cottonseed Meal or Cake.**

Substantially the same as 6315.

**6339. Misbranding of Cottonseed Meal and Cake.**

Substantially the same as 6315.

**6345. Misbranding of Cottonseed Meal.**

Article contained less protein and fat and more fiber than was declared on label. Jan. 28, 1918, defendant pleaded guilty and imposed a fine of $100.

**6330. Adulteration and Misbranding of Oats.**

Adulteration was found as water and barley had been mixed and substituted in part for oats. Misbranding was charged as label declared article was pure oats. March 1, 1918, defendant pleaded guilty and paid $100 fine.

## Meat

**6302. Adulteration of Pork Chops.**

The above was alleged as article consisted of a filthy, decomposed and putrid animal substance. Aug. 1, 1918, defendant pleaded guilty and was fined $25.

**6307. Adulteration of Pigs Feet.**

Substantially the same as 6302.

## Milk

**6301. Adulteration of Milk.**

The above was alleged as it contained dirt and filth. On July 11, 1918, defendant pleaded guilty and was fined $100.

**6304. Adulteration of Milk.**

The above was found true as water had been mixed and lowered its quality. Aug. 5, 1918, defendant pleaded guilty and was fined $25.

**6305. Adulteration of Milk.**

The above was found true because butter fat had been abstracted and reduced quality of milk. Aug. 7, 1918, defendant pleaded guilty and paid $20 fine.

**6306. Adulteration of Milk.**

Substantially the same as 6304.

**6324. Adulteration of Milk.**

Substantially the same as 6305.

**6325. Adulteration of Milk.**

Substantially the same as 6304.

**6328. Adulteration of Milk.**

Substantially the same as 6305.

**6343. Adulteration of Milk.**

Substantially the same as 6304.

## Oysters and Fish

**6317. Misbranding of Oysters.**

This was found true as labels read contents 4 ounces, 8 ounces or 5 ounces, as the case might be, and in truth each can contained a less amount. On Aug. 28, 1918, defendant pleaded guilty and was fined $50.

**6318. Adulteration of Oysters.**

Adulteration was alleged as water had been mixed and substituted in part for oysters. Aug. 28, 1918, defendant pleaded guilty and was fined $10.

**6322. Misbranding of Oysters.**

Substantially the same as 6317.

**6333. Adulteration of Tuna Fish.**

Adulteration was found as product contained a filthy, decomposed, putrid animal substance. Nov. 6, 1918, defendant pleaded guilty and paid $100 fine.

## Pepper

**6347. Adulteration and Misbranding of Pepper.**

Above was charged as pepper shells had been mixed and substituted and label read "Pepper," but in truth consisted of a mixture of pepper and pepper shells. Aug. 15, 1918, company pleaded guilty and paid $750 fine.

## Soda

**6316. Adulteration and Misbranding of Fox Squirrel Brand Soda.**

The above was alleged because saccharin was substituted and that it was food in package form and net weight was not marked on outside of package. May 9, 1917, pleaded guilty and July 2, 1918, defendant paid $60 fine.

## Tomatoes and Tomato Products

**6327. Adulteration of Catsup.**

Catsup consisted in part of a filthy, decomposed vegetable substance. May 27, 1918, defendant company pleaded guilty and paid $50 fine.

**6331. Adulteration of Tomato Pulp.**

The above article consisted in part of a decomposed vegetable substance. Dec. 5, 1916, no claimant appeared for property and court ordered product destroyed.

**6334. Adulteration and Misbranding of Tomatoes.**

It was found water had been mixed and substituted in part for tomatoes, and label read contents 1 pound 3 ounces of tomatoes, and in truth each can contained 15 per cent of added water. March 7, 1918, no claimant appearing for property court ordered property destroyed.

**6336. Adulteration and Misbranding of Tomatoes.**

Substantially the same as 6334.

**6344. Adulteration of Tomato Paste.**

Adulteration was alleged as it consisted of a filthy, decomposed and putrid vegetable substance. March 11, 1918, no claimant appeared for property and court ordered same destroyed.

**6350. Adulteration of Tomato Paste.**

Substantially the same as 6344.

# Dehydrated Vegetables

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
INCORPORATED
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U.S.A.

# Marketing Eggs in New York City

ABOUT one and one-half billion dozens of eggs are produced in the United States annually. Approximately one-tenth of this production, or 150,000,000 dozens, are received annually in New York City.

The ten states leading in egg production according to the U. S. census report of 1910 are:

| | Dozens |
|---|---|
| Missouri | 111,816,693 |
| Iowa | 109,760,487 |
| Ohio | 100,889,599 |
| Illinois | 100,119,418 |
| Kansas | 81,659,304 |
| Indiana | 80,755,427 |
| Texas | 77,845,047 |
| Pennsylvania | 74,729,705 |
| New York | 72,349,034 |
| Michigan | 59,915,851 |

In addition to these great egg-producing states, the following centers have built up great reputations as specialized egg-producing districts: Petaluma district in California (white eggs); Vineland district in New Jersey (white eggs); Little Compton district in Rhode Island (brown eggs); Hunderton district in New Jersey (white eggs).

If all of the eggs produced in New York state were sent to New York City, they would total less than half of the number consumed by that great city. Less than 10 per cent of the supply of eggs required for Greater New York are produced within the state; the remainder come from other states, while frozen eggs are shipped in from all parts of the whole world, China alone sending about 100,000 dozens.

Eggs shipped to New York City from the states west of Pennsylvania are known as westerns, those shipped from the states south of the Mason and Dixon line are called southern eggs, and white eggs sent to New York City from New York, Pennsylvania, New Jersey and the New England states are called state and nearby.

Eggs, like other farm produce, have their periods of maximum and minimum production, which vary with climatic conditions. Those states having the earliest spring will begin to send eggs to the markets first. Texas eggs begin to arrive in December. They are followed closely by those from Kentucky and Tennessee, where the natural producing season begins in December and ends in April. Beginning in March the Ohio, Indiana, Illinois, Missouri and Kansas eggs appear, and later in the spring Michigan and Minnesota eggs begin to arrive.

In the beginning of the season, when the weather is cool, southern eggs command a high price, but as the season progresses and the weather becomes warmer, southern eggs are not very desirable and northern eggs are in greater demand and bring the best prices.

Eggs produced in New York, Pennsylvania, New Jersey, and the New England states always command the very highest prices because they reach the market quicker and are fresh. Many cars of western eggs, however, reach the New York market in a very much better condition than do some of the nearby eggs, which arrive badly shrunken and heated.

Because of the demand of the Boston consumers, the farmers of the New England States produce brown eggs. The New York market prefers and pays a premium for chalk-white eggs. Philadelphia has no preference as to color, but is satisfied with an egg so long as it is fresh.

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# Prices of Milk Fixed in Great Britain

ACCORDING to a British press report, it was recently stated in the House of Lords that the summer prices of milk have been fixed for the producer, the wholesaler and the retailer after a careful examination of the cost of production made by a commission appointed by the food controller for the purpose, which included representatives of the Central Agricultural Advisory Council, the consumers, the boards of agriculture of England and Wales and Scotland and the Costings Department of the Ministry of Food.

The maximum prices per imperial gallon (1.2 United States gallons) for sale by or on behalf of the producer in England and Wales (except Cornwall, Devon, Somerset, Dorset and part of West Riding of Yorkshire) are 1s. 4d. (32.4 cents) for May, 1s. 3d. (30.4 cents) for June, 1s. 6d. (36.5 cents) for July, 1s. 8d. (40.6 cents) for August, and 1s. 10d. (44.6 cents) for September. In Scotland the prices per imperial gallon were fixed at 1s. 6d. for May, 1s. 4d. for June and July, 1s. 7d. (38.5 cents) for August and 1s. 10d. for September. These prices are for cooled milk dispatched twice daily by the producer. The railway charges, if any, between seller and buyer are to be borne by the buyer. For milk delivered once daily there is a reduction of ½d. (1 cent) and for milk collected by the buyer at the producers' premises there is a reduction of 1d. (2 cents).

Wholesale dealers other than producers are allowed a maximum margin of 2d. (4 cents) per gallon over the producers' price for milk delivered at the buyer's railway station, and over the five months an average maximum margin of 5d. (10 cents) for milk delivered to the buyer's premises. Where milk is delivered by the producer to or for the account of the buyer, in accordance with the directions of the seller, the maximum price is ½d. higher than the price chargeable to the seller by the producer.

The maximum producer's prices, as specified for England and Wales, are reduced by 2d. in the counties of Cornwall, Devon, Somerset and Dorset. In the West Riding of Yorkshire (exclusive of certain food control committee districts) arrangements will be made so that producers and distributers will receive an increase of 2d. per gallon.

The general maximum retail price is as follows: England and Wales: 2s. 4d. (56.8 cents) for May and June, 2s. 8d. (64.9 cents) for July and August and 3s. (73 cents) for September; Scotland: 2s. 8d. for May and August, 2s. 4d. for June and July and 3s. for September. Local maximum retail prices will be fixed in each food control committee district or group of districts according to local conditions of distribution by or on behalf of the food controller. The general retail price per quart in England and Wales is therefore 7d. (14 cents) in May and June, rising to 8d. (16 cents) in July and

August and reaching 9d. (18 cents) by the end of September.

As regards cheese, a reduction of 2d. a pound to 1s. 6d. was made on March 9. The whole question of decontrol is now under consideration, but it depends to some extent on the quantity of foreign imports that will be available. Until the date of decontrol maximum prices to the producer will be fixed on a parity with the milk prices.

## Cows, Not Brewers, to Get Barley

The closing of the market for barley in the brewing industry in the near future, as well as the present high price of corn, is resulting in many inquiries concerning barley as a dairy feed, says C. H. Eckles, new chief of the dairy husbandry division at University Farm, St. Paul. Barley has long been a standard part of the dairy cow ration in north Europe and has been fed to some extent in parts of America. The reason it has not been used more for feeding purposes is that the brewers wanted it and were willing to pay enough for it to keep it out of the feed trough. As a result corn has been the cheaper feed, but barley will undoubtedly be fed to a much greater extent in the future.

In feeding value barley is slightly below corn, but so little that for all practical purposes it should be put in the same class and considered as the equal of corn pound for pound, adds Mr. Eckles. At current market prices barley is cheaper than corn. Barley supplies 79 pounds of digestible food to the hundred pounds and corn 86 pounds. With corn at $1.40 a bushel, a pound of digestible food in corn costs three cents. With barley at 85 cents a bushel a pound of digestible food in barley costs two and a quarter cents. When corn is worth $1.40 a bushel barley is worth about $1.10 a bushel.

Barley for cows should be fed ground and may be used with advantage up to half the grain ration. A good ration, containing barley, would be as much corn silage and clover hay as the cows will eat up clean and a grain mixture of four parts of barley, two parts wheat bran and one part oilmeal or cotton seed meal. The grain mixture should be fed at the rate of one pound to each four pounds of milk produced by a Holstein or two to each three pounds of milk produced by a Guernsey or Jersey.

## No Beer, More Milk

One leading city of the Southwest formerly had extensive brewing interests, it being a distributing center for the principal stock-raising sections of Texas. With the coming of prohibition the beer plants were paralyzed temporarily, until an ingenius brewer converted his malt factory into a milk depository and distributing agency.

Now other brewers are also operating as emergency dairies, with the result that many people who used to drink beer are finding the wholesomeness in an abundance of milk.

SOMETHING NEW

*Samples Gratis*

GRANULATED BORIC ACID

Will dissolve more readily than any form hitherto introduced
- - When ordering, specify - -

20 Mule Team Granulated Boric Acid
U. S. P.

Pacific Coast Borax Company
New York Chicago Oakland

Every Kind of
WARD'S
FAR FAMED
BREAD and CAKES
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

WARD BAKING COMPANY
New York Boston Providence Cleveland
Brooklyn Pittsburgh Chicago Baltimore

*"I'se in town, Honey!"*

What breakfast is so pleasing, so satisfying as Aunt Jemima Pancakes, smothered in syrup and butter! And no breakfast is simpler to prepare. Just add water to Aunt Jemima Pancake Flour and the fragrant cakes are ready as soon as the coffee is.

AUNT JEMIMA
PANCAKE FLOUR

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# Grand Central Palace to Become a World Trade Mart

ONE of the biggest enterprises to be embarked upon, having in mind the extension of American commerce in foreign countries, as well as the importation of foreign goods to America, has just been inaugurated in New York City. It is the new proposition of the Merchants and Manufacturers Exchange of New York to make Grand Central Palace a great clearing house for world commerce.

On September 30, the United States Government will turn Grand Central Palace back to the Merchants and Manufacturers Exchange. For months this great twelve-story building—the largest exposition building in the world—which occupies an entire city block, has been used as an army base hospital. Its evacuation, now taking place, will permit reconstruction of the entire interior so as to make it ideal as a permanent show place for all sorts of manufactured products. The industries will be grouped and permanent exhibits will be made on eight spacious floors, each floor having approximately 60,000 square feet of space. The remainder of the building (the four lower floors) will be utilized for the annual expositions which have made the building famous, such as the Automobile Show, Motor Boat Show, Flower Show, Electrical Exposition, Chemical Exposition, Hotel Men's Exposition, etc.

Permanent exhibits of products of the more important industries will be opened beginning October 15th. The Merchants and Manufacturers Exchange has established foreign connections for export business in every important city of the world, and manufacturers, jobbers, retail dealers, and the thousands of foreign buyers undoubtedly soon will regard Grand Central Palace as the world's great trade center and will make it their headquarters when visiting New York. Looking forward to this the management will establish clubrooms, conference rooms, office facilities, etc., to increase the foreign buyers' comfort while in the Metropolis.

Never before has there been such a permanent exchange conducted along international lines which will give the American manufacturer an opportunity to come into direct contact with the domestic and foreign buyer. Some of the industries represented will occupy an entire floor, such as the International Farm Tractor and Implement Exchange, the International Hardware and Homefurnishings Exchange, which will be among the first to be opened, on the sixth and seventh floors respectively. Other enterprises under way for other floors are a permanent Mining Machinery Exposition, a Railway Equipment Exposition, Textile Display, Printing Trades Exhibit, etc. The Farm Tractor Exchange and the Hardware Exchange will open on October 15, 1919. The plans of the Merchants and Manufacturers Exchange are decidedly elaborate, and in a number of ways they will afford a service to the manufacturer, jobber and dealer which has never been possible under the usual systems of merchandising.

Through its wide representation in other countries the Exchange will make its proposition known to every foreign buyer before he sails for America and acquaint him with the value of the service of the new enterprise, while in the United States and Canada the fact that the building is so well known leaves no doubt that it will be the mecca of thousands of domestic dealers and jobbers.

In spite of the fact that the building is an enormous one, space necessarily is limited and manufacturers interested in putting their products before the eyes of buyers in this highly convenient manner will have to step lively to secure space on the various floors. Only goods of proven quality and concerns of A-1 repute will be permitted to exhibit. Grand Central Palace, which is a beautiful building in itself, and prior to the entry of the United States into the war, housed the largest expositions held in New York, is centrally located and most convenient to all railroads, steamship piers, hotels, theatres, and the shopping district. The march of the world's industrial progress during the reconstruction period will be largely via Grand Central Palace.

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## Prohibition Makes Opportunity for Tea

IGNORING the moral, political and economic phases of prohibition, we tea men—importers, packers, jobbers and retailers—are offered the greatest business opportunity of generations — that of turning the attention of the American people to the charms of tea as a mildly stimulating social beverage, says Carter, Macy & Co., Inc., in the *Retail Grocer's Advocate*.

Every English speaking country in the world, i. e., England, Ireland, Scotland, Australia, New Zealand, Canada and South Africa, uses from four to seven times the quantity of tea per capita consumed in the United States. The United States would have been a tea-drinking nation except for the Boston Tea Party. This old bogy for 143 years has deprived the American people of a delicious beverage prized by civilization for 4,000 years.

While the population of the United States has increased 108 per cent in twenty-seven years the importations of tea have increased only 43 per cent and the per capita consumption of tea has decreased from 1.39 pounds in 1880 to .98 pounds in 1917.

The reason is plain: It is because people have had their attention directed to other beverages.

What is the remedy?

The remedy lies obviously in adopting the methods that have built up the demand for other beverages, the methods that have erected great industries and amassed great fortunes for those who acted.

The remedy is to teach the American people.

First, how to make good tea.

Second, to use good tea, and

Third, to be able to recognize good tea when they drink it. This can only be done through publicity.

And that is what the leading tea men of America propose to do now, while the subject of prohibition is on everybody's tongue and the public has a receptive mind for learning about tea.

# RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office.

1,298,130. Coffee-roaster. Frederick A. Wilcox and George H. McIntire, Spokane, Wash.

1,298,488. Machine for stemming fruit. John B. Foote, Oak Park, Ill.

1,298,520. Mechanism and process for cutting filled wafers. Edward E. Lawrence, Jamaica, N. Y., assignor to Loose-Wiles Biscuit Co., Long Island City, N. Y.

1,299,198. Feeder especially adapted for asparagus-handling machines. David Low and Albert R. Thompson, San Jose, Cal.; said Thompson assignor to said Low.

1,299,245. Coffee-roaster. Everett T. Shortt, Dallas, Tex.

1,299,492. Apparatus for dehydrating. Max F. Mangelsdorff, Union Hill, N. J.

1,299,493. Process of and apparatus for preparing potatoes for dehydration. Max F. Mangelsdorff, Union Hill, N. J.

1,299,819. Macaroni and the like food product. Marie L. Bouchet, Roselle, N. J.

1,300,497. Drier for evaporating fruits, vegetables, and the like. Henry L. Shepard, Portland, Ore., assignor to Pacific Evaporator Co., same place.

1,300,604. Treating flour. Henry Greville, Birkenhead, England.

1,300,718. Process of drying macaroni. Karl Gammel, Cleveland, Ohio, assignor to The Cleveland Macaroni Co., same place.

1,301,038. Apparatus for depositing dough. James S. Clinton, Chicago, Ill.

1,301,450. Hog scalding, dehairing and cleaning machine. Robert E. Jordan, Chicago, Ill., assignor to The Allbright-Nell Co., same place.

1,302,002. Citrus-fruit-sizing machine. Orin N. Boyer, Ontario, Ore.

1,302,005. Green-pea-hulling machine. Thomas P. Bullard, Roseboro, N. C.

1,302,189. Method of canning. Francis P. McColl, Ridgewood, N. J., and Walter W. Willison, New York, N. Y., assignors to Thermokept Products Corporation, New York, N. Y.

1,302,194. Machine for the treatment of sausage-casings. Oscar G. Mayer, Chicago, Ill.

1,302,205. Chocolate-coating machine and the like. Antonio Pagliuca, Boston, Mass., assignor to National Equipment Co., Springfield, Mass.

1,302,374. Fruit-stemming machine. Clyde L. Hunsicker, San Francisco, Cal.

1,302,462. Dough-baller. Walter Bachmann, New York, N. Y.

1,302,486. Edible-oil preparation. Henry V. Dunham, Mount Vernon, N. Y.

1,302,487. Medicinal-oil preparation. Henry V. Dunham, Mount Vernon, N. Y.

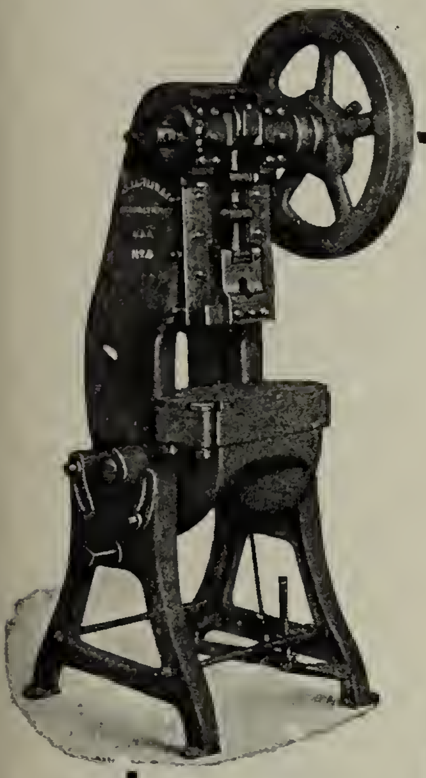
1,303,151. Candy-cutting machine. George K. Bainbridge, Ripon, Cal.

1,303,454. Machine for dividing and working dough. Hermann Bertram, Halle-on-the-Saale, Germany.

1,303,599. Machine for depositing confections on wafers, cakes, and the like. Ferdinando G. Salerno, Chicago, Ill.

1,303,724. Health food. Susan S. Ravenel, Washington, D. C.

1,303,773. Candy-mold. Isaac Cohn, Brooklyn, N. Y., assignor to Eye Brand Confectionery, Inc., same place.



LEFFLER SPECIAL MACHINERY

Paper Can Machinery
Automatic Tin Can Machinery
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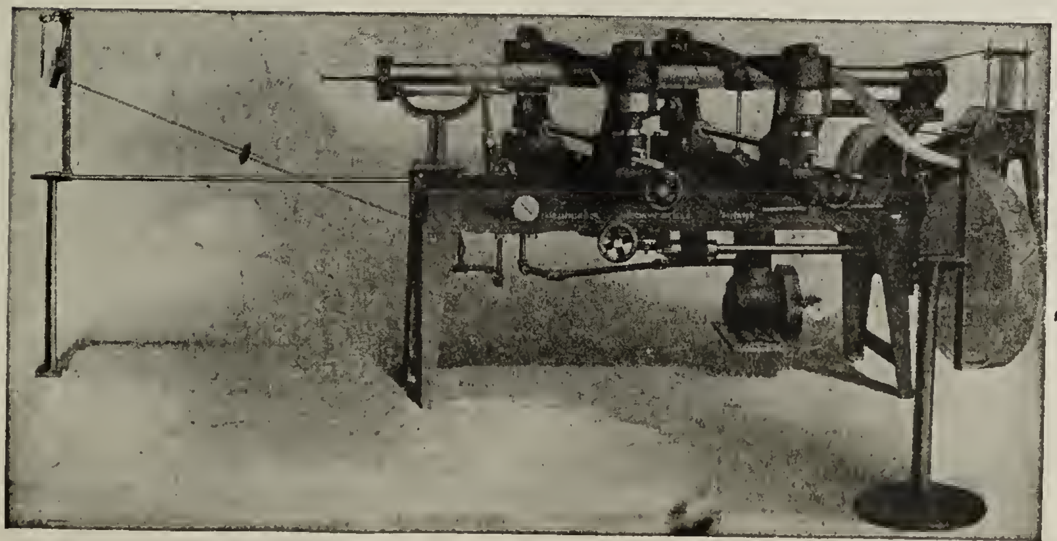

# Dr. Rosenau Finds No "Ptomaine" Poisoning in Canned Foods

THE following is the report of Dr. M. J. Rosenau of Harvard University, given to President Frank Gorrell of the National Canners Association.

A bacteriological examination has been made of about two thousand cans of merchantable canned goods. Professor John Weinzirl, who examined the first lot of about one thousand cans, found that some of them contained spores of bacteria, and occasionally the spores of molds. These studies have been continued by Dr. E. W. Cheyney, who has found substantially the same results, except for a smaller percentage of cans containing viable micro-organisms. It is well known to students of bacteriology that some of these spores are exceedingly resistant to heat, and very difficult to kill. Most of these spores belong to the common varieties of bacteria that need the oxygen of the air to germinate; hence, the importance of a tight can and a partial vacuum. It has been found that living micro-organisms most frequently occur in meat, sausage, crab and other food packed in a dry state, and less often in fruits and certain vegetables. Professor Weinzirl's results were published in the Journal of Medical Research, January, 1919. Dr. Cheyney's paper is now in press.

An experimental lunch club was started over a year ago in order to give a final answer to the question which is sure to be asked: Do these live bacteria in the cans injure health? We are now able to give a definite No! to this question. All the cans examined by Professor Weinzirl and Dr. Cheyney have been eaten by the scientific workers at this experimental lunch club, and careful note of any effects has been made. Not the slightest symptoms have been produced. These favorable results were clearly predicted, for the kinds of bacteria and molds found in merchantable goods are of the harmless sort. This work is being continued in order to cover all phases and will be made the subject of a separate publication.

We next became interested in determining what temperature and time it is necessary to process different foods in order that the packers may be assured a sterile product. For this purpose Professor J. Bronfenbrenner and Dr. W. T. Bovie devised a thermocouple with which the precise temperature in different parts of the can may be determined during processing. A description of this apparatus will appear in the next number of the American Journal of Industrial and Engineering Chemistry.

The next logical step was to determine the thermal death points of these more resistant spores, and this work is now being carried out.

A study of the causes of spoilage was undertaken early in the investigation, and it soon became evident that bacterial spoilage was due to under-processing or to leaky cans. We have, therefore, discontinued this part of the work, except in special cases to help unravel some special problem along this line.

Professor Otto Folin, co-operating with the Bureau of Fisheries, has made a special study of the use of dogfish as food with reference to methods of preparation and preservation. The final report of this work has just been received and is now ready for publication.

Professor E. V. McCollum of Johns Hopkins University, Dr. W. D. Bigelow and I are collaborating in a study of canned milk with special reference to the effect upon so-called vitamines, a substance known as fat soluble A. Dr. Bigelow extracted the fat in chemical purity, Professor McCollum used these fats to determine their effects upon the growth and nutrition of rats, and I am doing similar feeding experiments upon a rat colony in my laboratory, using the unaltered canned milk product. This work is nearing completion. The results are favorable and will soon be published.

We are making a special study of botulism, and this has been placed in the hands of one of our fellow assistants, Mr. Paul F. Orr. The object of this study is to determine the conditions under which the toxin of botulism is produced, the best methods of preventing this contamination, the proper temperature to kill the spores of the bacillus botulinus, and effects of cooking upon the toxin, et cetera. Mr. Orr has already obtained rewardful results, and I am sure after another year's work we will be able to give the answer to the question of botulism.

The chemical studies carried on by Dr. W. G. Webber and Miss H. G. Husted have been written up and make a voluminous monograph. The whole story of the chemistry and history of the ptomains has been developed. It would be impossible in the brief space of a letter to go into all the details of the chemical investigation. Certain outstanding facts, however, are evident. One is that it has been impossible to find a poisonous ptomain, and we believe that there is no such thing as "ptomaine" poisoning in the sense in which chemists formerly understood that term. I wrote an editorial which appeared in a recent number of the Journal of the American Medical Association, entitled: "What Are Ptomains?" This is the first of a series of editorials and articles which will appear, the effect of which we believe will be to discourage the diagnosis of "ptomaine" poisoning. Last winter our chemists extracted "ptomains" from a turkey and also from some sausage which had been accused. A control experiment was made upon a fresh turkey and fresh sausage, both of which were eaten without harmful results; precisely the same "ptomains" were isolated from the fresh turkey and the fresh sausage, proving, therefore, that these "ptomains" are simply formed by chemical manipulations.

We have now studied over 51 outbreaks of so-called "ptomaine" poison, involving 1,500 persons, and causing three deaths. This work has been done by Dr. W. E. Brown, Dr. R. N. Atwater, Dr. D. L. Sisco and several helpers. We have industriously looked for cases and have made a special attempt to discover the cause of all illness attributed to food. This part of our work has brought out many curious instances. One outbreak of "ptomaine" poisoning was, in fact, dysentery; another was sunstroke; another was due to salt petre put in the sugar in one of the military training camps; and a fourth was oxalic acid poisoning.

Of the three deaths, two of them were due to dysentery and the third was caused by oxalic acid poisoning.

It is very clear to us that injury due to food, is much less frequent than is commonly supposed, and, surely, less prevalent in this country than abroad. This, I think, is due to the fact that we are nearer the source of our food supply, which is more abundant, fresher and cleaner than in Europe. Furthermore, we use much more canned goods here than do the people in Europe, for it is becoming increasingly evident that canned goods are the safest foods that come to our table.

I have kept the work of Professor Bronfenbrenner and his immediate assistants for the last, although it really deserves first place. In this department of the investigation many thousand specimens of fresh food have been examined bacteriologically, and many healthy and sick individuals have been studied in order to clear up the relationship between food infection and food intoxication. About 60,000 strains of bacteria, of which some 1,500 have been fully identified, about 200 of which are being made the subject of an intensive study. It will be impossible to give all the details of the work, some of the results of which, however, may be gleaned from the following publications which have already appeared on this phase of the subject:

"On Methods of Isolation and Identification of the Members of the Colon-Typhoid Group of Bacteria: Late Fermentation of Lactos."

"Carbohydrate Fermentation by Bacteria as Influenced by the Composition of the Medium."

"A Simple Method of Carrying Meningococcus Cultures."

"The Micro Plate. A Simple Procedure for Study of Bacterial Activity."

"A New Indicator for Direct Reading of Hydrogen Ion Concen-

Identification of the Members of the tration in Growing Bacterial Cultures."

"A Rapid Method for the Identification of Bacteria Fermenting Carbohydrates."

"On Methods of Isolation and

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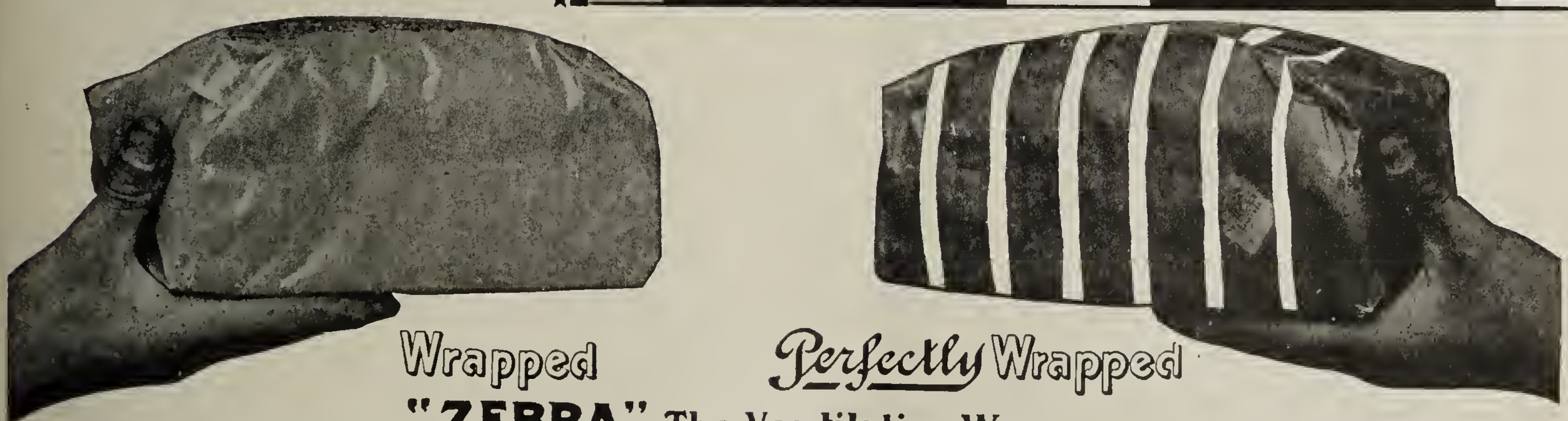


**"ZEBRA"** The Ventilating Wrap.

THE WATERPROOF PAPER & BOARD CO.
WAXED PAPER MANUFACTURERS
CINCINNATI, OHIO, U. S. A.

Colon-Typhoid Group of Bacteria: The Preparation of Milk and Milk-Whey as Culture Medium."

The following publications are in press:

"The Value of Vacuum in Canning."

"The Thermal Death Point of Various Bacteria Isolated from Canned Goods."

"On the Question of Heat Penetration During Sterilization in Canning."

"A New Proteolytic Organism Isolated from Food."

"A Gram-Negative Diplococcus the Cause of Spoilage of Canned Corn."

"A Study of Reducing Bacteria Present in Foods."

"Bacteriology and Mycology of Canned Foods."

"On Methods of Identification of Bacteria Fermenting Carbohydrates:

"1. Spontaneous Agglutination.

"2. Composition of Media for Identification of Bacteria Fermenting Carbohydrates.

"3. Hydrolysis of Carbohydrates During Sterilization."

It is becoming convincingly clear to us that there is no such thing as "ptomaine" poisoning, and that canned goods have a clean bill of health. They are, in fact, the safest foods that come to our table. Our studies furthermore emphasize the importance of Packing fresh and clean products.

The work was fortunately only slightly slowed up on account of the war. We are now going ahead full steam with a full crew.

Respectfully submitted,
(Signed) M. J. ROSENAU.

## Dissipated Fish and the Lure of Drugs

Mr. V. E. Shelford tells in the *Journal of the American Pharmaceutical Association* how he corrupted the habits of goldfish. He provided a shallow tank for them into which water flowed at one end with a drug in solution and at the other end without the drug. The outlet was in the middle so that the fish had complete freedom to swim away from the drug or into it and to select any concentration.

His first experiment was with carbon dioxide, giving the fish a kind of attenuated plain soda water. They swam into it and backed away again with protruded lower lip and lifted gills, but despite what seemed like coughing and gulping, they did not turn away from it. Perhaps they were practicing up against a sporting life to come. With morphine there was no apparent rejection even at first. They soon became sufficiently addicted to it to swim over to the inlet of the morphine solution and stay there. Some kept away from the greatest concentration, while others became regular dope fiends. With cocaine, after a short exposure, they refused to leave the solution inlet and remained close to it until they died from its effects. With ethyl or grain alcohol they soon learned where a solution of about 10 per cent was to be found and stayed there as long as possible. They are reported to have become "semi-intoxicated," but just how drunk a semi-intoxicated fish is we are unable to say. A tad-pole basked cheerfully in a 20 per cent solution of alcohol and water which has the killing power of average wiskey mixed half and half with water. What a full-grown bullfrog would do under such a temptation it is difficult to guess. Perhaps he "would a-wooing go." Scientific research often confirms established traditions. Goldfish preferred the strength of a full bodied wine for theirs.

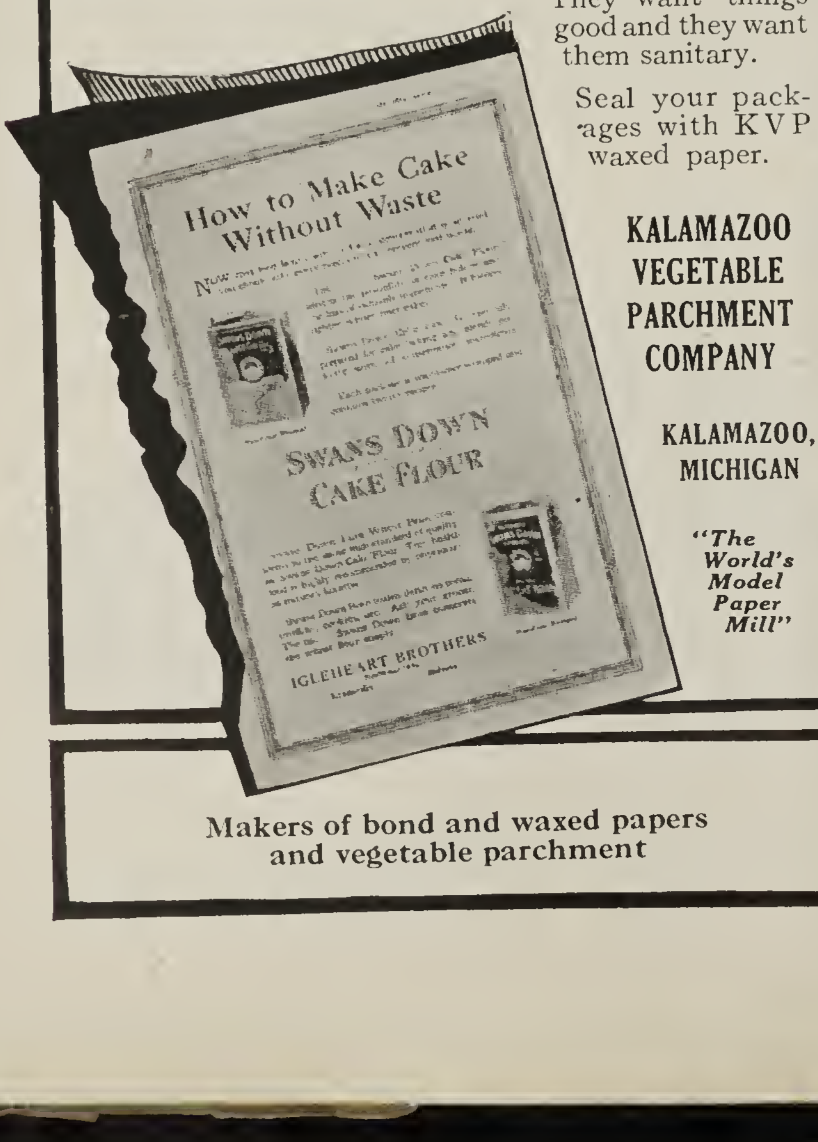
No record is given of the effects of the cigarette smoking habit upon fish.

**Conservatively $350**

worth of space in this one announcement was used to state that these Swans' Down packaged flours are wax paper wrapped and sealed.

Why do Igleheart Brothers invest good money to inform women of America of this fact? Because women now ***know*** the protective value of waxed paper wrappers, and this is a strong selling point. They want things good and they want them sanitary.

Seal your packages with KVP waxed paper.



How to Make Cake Without Waste

SWANS DOWN CAKE FLOUR

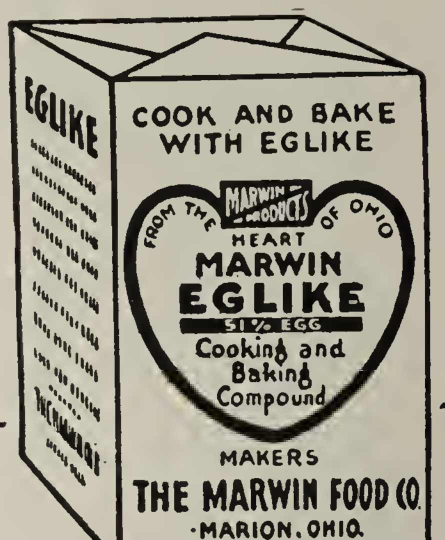
IGLEHEART BROTHERS

**KALAMAZOO VEGETABLE PARCHMENT COMPANY**

**KALAMAZOO, MICHIGAN**

*"The World's Model Paper Mill"*

**Makers of bond and waxed papers and vegetable parchment**



Recognized as the standard compound requiring no eggs for cooking and baking.

Serves the purpose well.

Is not referred to as an egg substitute.

Watch this space for real facts on this rapid selling product which has gained so much recognition.

**The Marwin Food Co., Marion, O.**

# The Peanut and Peanut Oil Industry Menaced by the Orient

THE peanut industry, which was becoming a big factor in the agricultural life of the South, and the peanut oil business, one of the growing activities in this section, are seriously threatened by the heavy importations of peanut and of peanut oil from the Orient.

The United States Department of Agriculture has just issued a report showing that during 1918 this country imported from the Orient, and mainly from Japan, 68,281,006 lbs. of peanuts as compared with 10,366,569 lbs. in 1913. The Department calls attention to the fact that rumors of large importations of Oriental peanuts during the past winter caused considerable alarm in the producing districts, but it expresses the thought that the supply in the East is not large and that Europe will again become a large importer of peanuts from the Orient. However, it adds:

"Recent developments in the trade in raw materials will seem to indicate that Japanese merchants may try to control the markets in order to maintain and protect the vegetable oil industry, which underwent a prodigious growth in Japan during the war and may prove difficult to continue successfully under peace conditions. Kobe already is considered the probable market of the Orient for vegetable oils, and it may be the purpose of the Japanese to make this market the clearing-house also for large quantities of the raw materials, including peanuts, which are used in the production of vegetable oil. * * *

"While importation of peanuts for this season may not exceed pre-war figures, the growth of the vegetable oil industry throughout the Orient and the consequent encouragement for the production of raw materials are actively to be reckoned with in the future by both dealers and producers."

During the last few years the peanut industry has been growing very rapidly in this country. In many parts of the South it was becoming a staple crop, taking the place of cotton in the boll-weevil sections. The production of peanuts has been furnishing the basis for a thriving oil industry, but the prospect of the peanut growers of the South and of the peanut oil producers is now seriously endangered by the heavy development of importations of peanuts and peanut oil from Japan, China and India. The South will thus soon face the acute situation of deciding whether it will be willing to see this thriving industry destroyed and the peanut growers impoverished thru the importation of peanuts raised by the cheap labor of China and Japan, tive tariff on peanuts and on vegetable oils sufficient to continue the prosperity of these vitally important industries. Had we entered the League of Nations as proposed, Japan might have had the right to vote as to whether we could put a protective tariff on anything or whether we could protect ourselves from Japanese and Chinese immigration or the importation of Japanese and Chinese products without limit. We wonder how many of the people who are upholding the covenant of the League of Nations as first proposed recognize the wide ramification of its possibilities for harm to America and its interests.

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## Hot Weather Food

FOR summer luncheons, no food is so economical, healthful and delicious as fish. Hot weather demands light, easily digested food, especially in the middle of the day when the highest temperature prevails. At such times fatty foods, essentially heating to the blood, should be avoided.

Fish, while light, is strength-giving and nutritious. Hence it is the warm weather food par excellence. For summer luncheons broiled, boiled, baked fish, or fish salads, are better than fried fish, unless care is taken to drain all the grease from it.

Any kind of cooked fish lends itself to a salad. The fish should be boiled the night before using. Flake, after removing skin and bones, and put on ice over night.

The salad may be as simple or as elaborate as desired. Plain lettuce may be used, or, if desired, other vegetables, celery, parsley, radishes, peppers, onions and cucumbers may be mixed with the lettuce.

For very hot weather French dressing (vinegar, oil, salt, pepper and paprika) is best. On cooler days, mayonnaise may be used. Roquefort cheese melted into French dressing makes a particularly fine salad.

---

Buy wisely what you really need now and save the rest in Thrift and W. S. S. for a sunny opportunity.

**DR. PRICE'S VANILLA**

Is made from the

**Finest Mexican Vanilla Beans**

***The same high quality is found in PRICE'S***

**Lemon, Orange, Raspberry and Strawberry Pure Fruit Extracts**

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SPECIAL
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**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley**, Chicago
INCORPORATED

# First Agricultural Trade Commissioner Appointed to Represent U. S. in United Kingdom

The first agricultural trade commissioner to work in foreign lands for the interests of American food producers has been named by the United States Department of Agriculture. He is Edward A. Foley of San Francisco, Calif., who has been appointed to represent the Department's Bureau of Markets in the United Kingdom. Mr. Foley will investigate conditions in the United Kingdom, and study the marketing and distribution of farm products with a view to the development and improvement of foreign trade in American agricultural products.

Mr. Foley sailed for Liverpool May 24. As he is to do much traveling, at the beginning of the work, at least, his headquarters abroad have not been fixed.

Mr. Foley was graduated in 1905 from the law school of the University of California. For four years he was assistant to the chief counselor of the Southern Pacific Railway Company and the Pacific Mail Steamship Company, handling questions on the imports and exports of food products. He then became an attorney for the Italian Consulate at San Francisco, his experience there covering the importation and marketing of Italian products and the exportation of American products to Italy. Mr. Foley also was attorney for exporters of dried fruits, flour, and wines to the Far East.

Upon the entrance of the United States into the war, he came to Washington as solicitor of the enforcement division of the Food Administration, and was in charge of the enforcement of regulations governing perishable fruits and produce. During his service with the Food Administration Mr. Foley investigated methods of handling and marketing foodstuffs, including canned goods, and also of cottonseed products. He was a representative of the Food Administration in joint hearings of the Federal Trade Commission and the Food Administration, and also represented that body in joint hearings with the Shipping Board Emergency Fleet Corporation in investigations relative to profiteering in foodstuffs by ship chandlers.

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## Water Glass Eggs

EVERY person preserving eggs in water glass has a right to expect to have a high quality product for use next winter. This necessarily is impossible unless the eggs are of highest quality to start with. In spite of care on the part of the purchaser, quality is bound to depend on how the poultryman collects, candles, grades and markets his product.

Eggs used for water glass trade should be infertile; that is, collected from pens where no males are kept. Eggs from mated pens, if collected and preserved strictly fresh without allowing an opportunity for heating, are just as good, but the opportunity for loss if the eggs are allowed to follow regular trade channels is, of course, very much greater. Every precaution, such as clean nests, clean litter, clean drop-boards, even to confining the hens in the house on rainy mornings, should be taken to insure clean eggs. Frequent collections help to keep the eggs clean and prevent heating, which may be caused by broody hens remaining on the nest. Dirty eggs that have to be cleansed before marketing should be sold for immediate consumption and not for preserving.

It is necessary to candle eggs sold for preserving, in order to detect and throw out blind checks, blood spots, or watery eggs, all of which are found, to some extent, from every flock. A satisfactory tester may be made by placing a lamp in an ordinary wooden box. A hole should be cut in the top for ventilation and another about an inch and a quarter in diameter should be cut in the side and on a level with the lamp-flame. By holding the egg against the opening, with the large end up, and looking down on, rather than through it, the condition of the shell and the quality of the contents can be easily determined.

A strictly fresh egg has a very small air space and is semi-transparent, except for the yolk, which can be seen holding hard and firm in the center.

Blind checks are eggs with thin or porous shells which are very apt to break in handling and will not keep if used for preserving. Such eggs may be detected either by candling or by tapping them gently together. The defective shell gives a dead sound rather than the metallic ring of the good egg.

Eggs containing small blood clots are perfectly good for food if broken at once and separated. Larger spots, blood rings or cloudiness, due to heat or germination, indicate decomposition in the first stages.

The size of the air space indicates the evaporation or age of the egg. A large air space with a mobile lower line indicates a stale or watery egg.

As the consumer will expect to pay from five to ten cents above market prices for eggs which have been carefully candled, he may reasonably expect them to be graded as to size. It may pay well to cull out the small eggs and sell them for immediate use, and makes a uniform grade which will insure future business.

Prompt marketing and preserving is, of course, absolutely necessary for best success. Your County Farm Bureau is in a position to act as your information medium whether your wants be an egg supply or an egg market. In either case, it will be well for you to get in touch with the Farm Bureau.—*Roy E. Jones, Extension Poultryman, Connecticut Agricultural College, Storrs, Conn.*

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An area of 367,738,000 acres, or 605,840 square miles, is under cultivation in the United States, as shown by the Department of Agriculture. In the last ten years more than 56,000,000 acres has been added to the aggregate under cultivation. More than one-fifth of the total land area of the continental United States is now under cultivation. It is more than two and one-half times the size of the State of Texas and about ten times the land area of the entire New England states. There are 6,707,000 farms in the country, an increase of 700,000 in the last ten years. Texas has the largest aggregate crop acreage, with 25,328,000 acres, or a little more than one-sixth of its total land area. It has also the largest number of farms, an average of 56.28 acres to the farm.—Dairy Trade Review.

## New Seed Oil From Cockle Burr

Out of the cockle burr which sticks to the clothes of the passerby, and which has generally been considered a pest, is now being made a new and valuable oil available for use in paints and varnishes and adapted for food.

The details were explained by Mr. L. B. Rhodes, oil chemist of the North Carolina Department of Agriculture, in an address delivered there May 3 before the North Carolina section of the American Chemical Society.

"The cockle burr," said Mr. Rhodes, "is widely distributed thru the United States, so that it is more or less of a nuisance in most localities, and is very abundant throughout the South. If the burrs could be obtained systematically in sufficiently large quantities, they could be easily milled.

"Those which I have gathered were either dry or in a half-dry condition. They were first cut in half by a trimming board and the kernels mashed. They were then placed in a box and vigorously shaken. The hulls were taken out, leaving the kernels at the bottom. These kernels were then pounded and rubbed in a mortar until the black shucks were removed, after which the husks were forced out by blowing. The ground kernels were then wrapped in cheesecloth and pressed between cold steel plates.

"The oil thus obtained was allowed to settle for three or four days and then filtered. It is of a light yellow shade; has a clear, sparkling appearance and a pleasant odor and an agreeable nutty taste. It keeps well without becoming rancid. On account of this quality it should eventually be used as a substitute in the dietary for other vegetable oils.

"The press cake left after expressing the oil should be of value as a good feed for cattle, and certainly it can be readily used as a fertilizer."

Mr. Rhodes said that he had no doubt that before long the cockle burr oil would have a place in commerce because of the richness of the kernel and the ease with which the oil can be extracted. The yield from the kernel is about 30 per cent, and the kernels constitute about the same proportion of the bulk of the crude burrs. The press cake contains 40.34 per cent of protein.—*Manufacturers' Record.*

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The Industrial Transportation Company plans to build a cotton seed oil refinery at Waco.

## British Trade Restrictions

The tariff expert of the Bureau of Foreign and Domestic Commerce has prepared a bulletin giving details of British trade restrictions down to May 1 of this year, with lists of prohibited articles. By using this in conjunction with new developments announced in "Commerce Reports," you can keep yourself well posted on this very important subject.

Copies can be obtained from the Superintendent of Documents, Washington, D. C., or any district office of the Bureau of Foreign and Domestic Commerce.

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## Jams and Jellies

(Continued from page 16)

XIII. What are the most popular commercial prepared preserves?

XIV. Why are Michigan berries generally used in high quality preserves?

XV. Name four brands of jelly, preserves, jams.

XVI. Why is fig jam important in the diet?

NOTE: This lesson may be used in connection with the usual experimental cookery lesson on preserving or as a separate lesson in the lecture work.

THERE IS

CLEANLINESS, HEALTH
INSURANCE, ECONOMY
AND CONVENIENCE IN

Our **PET**
BRAND
**Evaporated Milk**

*The Standard of the World*

Wins and Holds Trade on
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**Helvetia Milk Condensing Co.**
HIGHLAND, ILLINOIS

ORIGINATORS OF EVAPORATED MILK

Whiter—Sweeter—Lighter
Bread and Cake

The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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THE WHOLESOME
BAKING POWDER

insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

RUMFORD CHEMICAL WORKS,
Providence, R. I.

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## Casein Found in Milk

CASEIN is an important albuminous substance found in milk, that is being used in an ever increasing quantity for the manufacture of buttons, combs and ornaments which, in their finished state, resemble some of our celluloid creations. But, in addition to its value when thus used, this element of milk has food value that should make it even more valuable as a human food than the celluloid-like articles are as ornaments.

Milk, left for a time, loses its homogeneous appearance and separates into four layers. The first layer, which is yellowish, is composed of buttery globules which rise to the surface owing to their light density; this layer represents the cream. The second is a clearer, sugary, opalescent substance; the third, whiter and thicker, which appears to be composed of very small particles of whey held in suspension and which contain the greater part of the casein; finally, at the bottom, is a thin, pulverulent deposit of tricalcic phosphate.

The first step in obtaining casein from milk is to separate the casein from the whey in which it is held in suspension. This may be done either by means of rennet or by acids. Rennet, as is known, is a substance which is found in the inner lining of the fourth stomach of suckling calves or other young ruminants still nourished by milk, and its function is the curdling of the milk. The rennet produces a curd of about the consistency of cooked albumin, ceding its whey only with difficulty. For this reason it is necessary to cut the curd into pieces and heat it progressively and slowly up to a temperature of 50 to 60 degrees C. (122 to 140 degrees F.), according to the initial acidity of the milk. This is the technical process used in the preparation of curd for Gruyère cheese, as well as in the production of casein, with the difference that in the latter case the curd should be stirred as soon as the coagulation commences. Instead of rennet, acids may be employed. At an ordinary temperature, acids coagulate the milk instantly when used in proportions ranging from 3 to 6 grams per liter, according to the nature of the acids. A flakey curd is produced which separates spontaneously from the whey. The most preferable acid for this purpose appears to be acetic acid.

The use of rennet or acids in the production of casein may be dispensed with if the curd is allowed spontaneously to become acidified

**For Sale**
4 cars Dried Apple Pomace, A1 condition. Samples furnished.
**GARRETT & COMPANY, Inc.**
Bush Terminal Building
No. 10, Brooklyn, N. Y.

**CANNED SALMON**
ALL GRADES
ALL SIZES
*Largest Distributors in the World*
**KELLEY-CLARKE CO.**
New York City Seattle, Wash.

**All Nut Margarines Are Not Alike**

A perfect Nut Margarine should have the following requisites:

Keep sweet as long as butter.
Soften at the same temperature.
Have a butter flavor.
Have a texture so as to spread like butter.

FARRELL'S A-1 Brand has stood the test through the hottest months of Summer. We stand ready at all times to prove this statement.

Made from the delicious juice of cocoanuts.
Churned in pasteurized milk.
Contains no animal fats.

**DOWNEY-FARRELL COMPANY**
CHICAGO, ILL.

**INSTALL HYDROGENATED OIL SYSTEM**

Making essential products used in Oleomargarine, Lard Compound, Shortening and other edible products; also in Soaps, Candles, Lubricants, Leather and many other fields.

Those contemplating re-modeling or enlarging their plants to meet modern food conditions, should be especially interested in this process.

We can refer you to many of the largest and most progressive plants in this country and abroad. Our process has been in successful use for many years and has stood the test of time and experience.

For Full Particulars, write

**HYDROGENATED OIL CO.** (St. Louis Office) **207 No. Broadway, St. Louis**

through the fermentation of the milk at a temperature of about 20 degrees C. This is the most economical process, although the yield is less than by the other methods. The curd separated from its whey by decantation or by filtration is put under a press, then crushed, and afterwards dried in a current of warm air at a temperature ranging from 50 to 60 degrees C. (120 to 140 degrees F.). It appears in the form of horny concretions of a yellowish color. Before casein is used in commerce, it is ground into a white flour which can be made so fine as to resemble rice powder in appearance. Casein, thus obtained, may be used as an alimentary or an industrial product.

Acid casein must be reduced to a very fine powder, for it does not dissolve easily in cold water; mixed with bread-making flour, it can be used in making bread. Alkaline casein is not as good as acid casein for bread making, as bread made from the alkaline does not keep well during hot weather. These two kinds of casein can be used in a number of ways in culinary preparations.

An expert states that, except for salt and whale oil, the South African soap industry is almost entirely dependent on imported raw materials.

## Virgin Peanut Oil Available

Virgin peanut oil of domestic manufacture is on the market for the first time in considerable quantities. It is one of the most delicious of oils, especially fine in flavor and, in the opinion of many consumers, equal in every way to the best olive oil. The bulk of the peanut oil that has been available was hot-pressed oil. The virgin oil is cold-pressed and no refining is required. The United States Department of Agriculture during the past two years has stimulated the production of virgin peanut oil and specialists of the department have cooperated closely with producers.

The virgin peanut oil, home-made from a home product, will come in competition with foreign oils. About 98 per cent of the olive oil consumed in the United States is imported. Olives are grown in California, but the bulk of the product goes to meet demands for olives in forms other than oil. Department experts believe that virgin peanut oil, once the American people are familiar with it, will be as popular as any table oil thus far generally used.

## Lock Your Hen Coop

"Well, Dinah, I hear you are married."

"Yassum," said the former cook. "Ise done got me a man now."

"Is he a good provider?"

"Yassum. He's a mighty good provider, but I'se powerful skeered he's gwine ter git kotched at it."

The largest yield of wheat ever recorded was 117.2 bushels per acre. It was produced in 1895 in Island County, Washington, on an 18-acre field.

## Confectioners Convention

(Continued from page 29)

establishing uniformity in the pure food laws of the various states with the National Pure Food Law of the United States. The Association placed itself squarely on record as being in favor of having the Congress of the United States enact a law that would give confectionery and all other articles of food that are shipped in interstate commerce the fullest protection from being interfered with by state food officials or state food laws that Congress can possibly give under the Constitution of the United States.

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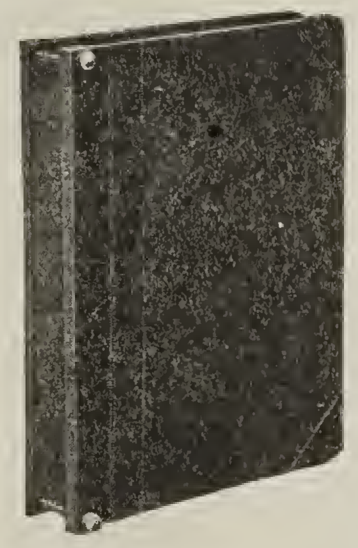

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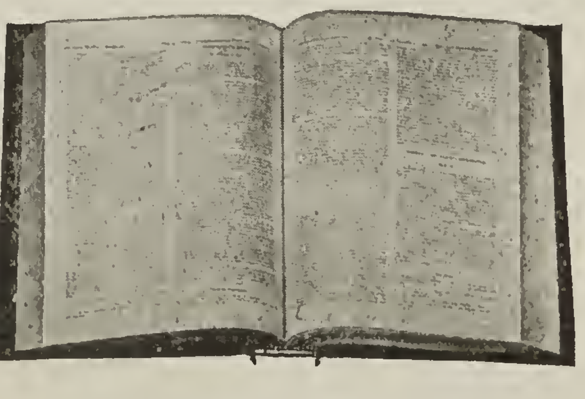

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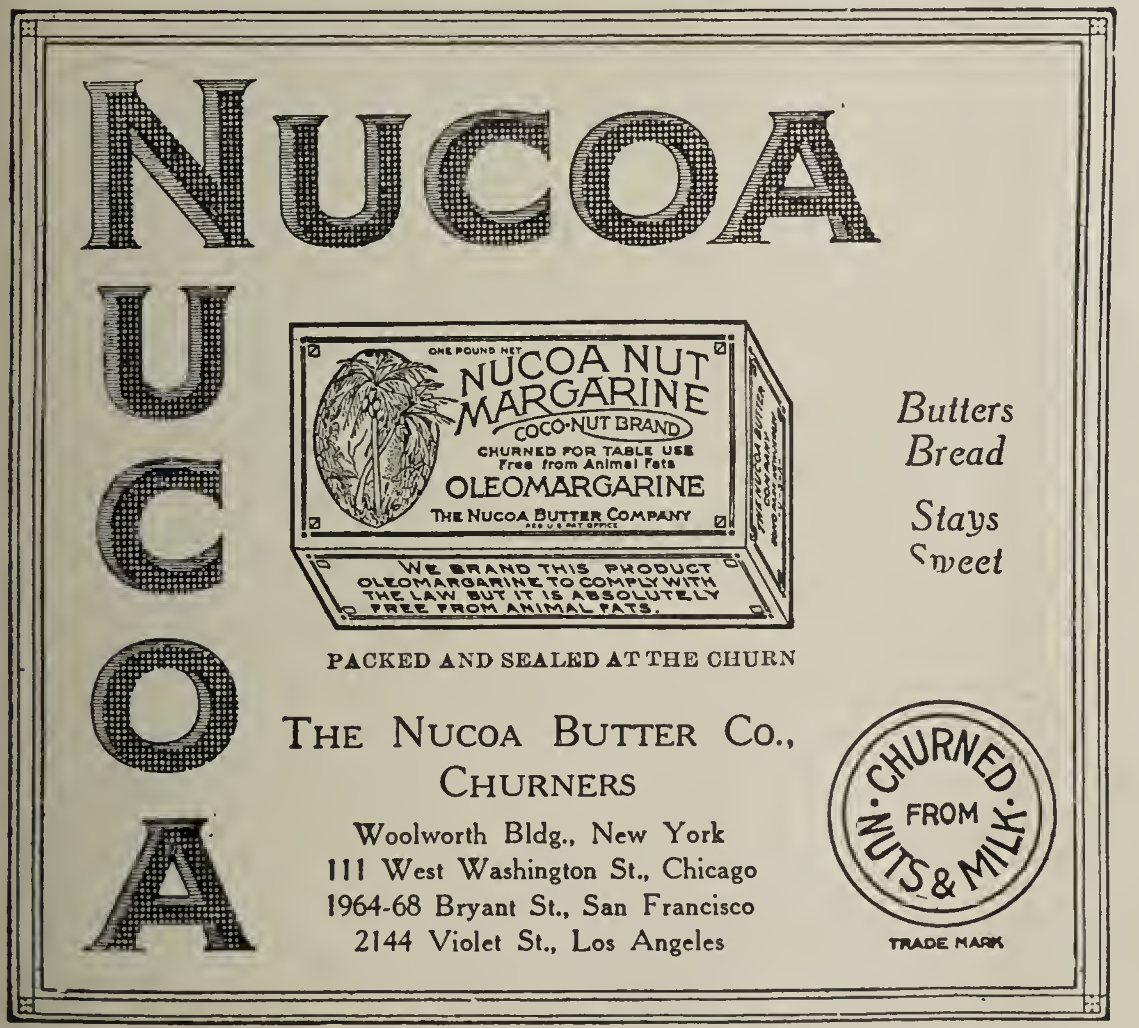

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Men make endless effort to create supply to meet demand where exists shortage in foods. Thus, in a period of world needs ,many new cooking oils and fats were developed from vegetable materials, where once we depended entirely upon animal fats. They have come to stay, beyond doubt. They are, indeed, so good no man would dispense with them.

In the same spirit the Crescent Laboratory took note of the fact that the total yield of maple products is perhaps sufficient for one-tenth the population of New York alone, while practically all America knows and likes maple syrup and maple flavor.

Before the Crescent Manufacturing Company, many scientists had worked on the problem of supplying at least the maple flavor, this to be added to cane sugar to permit enjoyment of the taste so delicious in Nature's own maple. But following the method of most extract men, they worked with ethers and got poor or no results.

The Crescent Laboratory turned from synthetic or chemical fields seeking the answer in Nature's laboratory, the vegetable kingdom, and found the elusive but distinct and delicious flavor of maple could be satisfactorily approached by a combination of vegetable elements.

In its own field of supplying maple flavor, Mapleine is successful because its delicious flavor remains unchanged after cooking or freezing, nor does it change with lapse of time. This product, a pioneer in a field created by itself, has through its label made a consistent and definite effort to establish its purpose and utility, while at all times making clear that

(M-434)

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Contains no maple sugar, syrup nor sap, but produces a taste similar to maple.

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Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.

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## Wilson's *Certified* Bacon
excels in flavor and quality

A few slices of Wilson's Certified Bacon — hot from the kitchen—a teasing, pleasing aroma that wakens new zest in your appetite—a crisp, rich, delicious taste that tells of excelling quality—No one has a better breakfast than you!

For our Certified Bacon the choicest young porkers are inspected and past by competent inspectors. The most exacting standards are observed, and these choice bacon sides are given our long, mild cure and sweet hickory smoking, so that the finished product proves to you that "Certified" is not a mere trade name but is a *principle.*

We are as careful and thoughtful as your own mother would be in the selection and preparation of Certified Bacon, as well as Certified Ham and all other foods bearing the Wilson Label. This label is a constant assurance to you that the product has been handled with the *respect* your food deserves.

It is an economy to buy the whole piece of Wilson's Certified Bacon. Slice it as required. Each slice is fresh and firm the remainder keeping sweet and retaining its mild, tempting, hickory-smoked flavor.

"This mark WILSON & CO. your guarantee"

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## In Milk—Puffed Wheat

Puffed Wheat is whole wheat steam exploded—puffed to eight times normal size.

It is light and airy, crisp and flavory. Every food cell is blasted, so digestion is easy and complete.

Puffed Wheat in milk offers children the two greatest foods in existence, in their most enticing form.

## On Berries—Puffed Rice

Mix Puffed Rice with your morning berries. That flavor blends best with fruit.

The grains are like bubbles. They crush at a touch. The flavor is like toasted nut meats.

When you learn what Puffed Rice adds to berries you'll be sorry that you went so long without it.

## On Ice Cream—Corn Puffs

Corn Puffs are sweet pellets of corn hearts, puffed to airy, flaky globules with a nut-like taste.

There was never a garnish so delightful on ice cream.

These fragile tid-bits seem to melt away with the cream, and they add to it the flavor of super-toasted corn.

**PUFFED WHEAT, PUFFED RICE and CORN PUFFS**
*Each 15c, Except in Far West*

**The Quaker Oats Company**
*Sole Makers* 3131

# THE AMERICAN FOOD JOURNAL

Vol. XIV July, 1919 No. 7

Cunard Bldg., Chicago

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Issued monthly by
THE PATTERSON PUBLISHING CO.
Cunard Building
140 N. Dearborn St., Chicago

## With the Publisher

WITH warm weather approaching, most people turn their eyes toward golf links, fishing streams and vacations generally.

However, we find that most progressive food experts take the time during the summer when things are quiet to brush up on their reading. Realizing this, we are trying to give you just as good or, we hope, a better magazine than in the busy winter months.

Dame rumor is a wonderful creature, but causes more trouble than good. The birds have told us that there is a rumor floating around that the Food Journal is to be sold. Nothing is more discouraging in building up a paper than to have such foolish gossip buzzing around, for it discourages both advertisers and readers. We wish to emphatically go on record to the contrary.

Some wonderful plans for editorial matter are on foot which will crystallize in a month or two. We are determined to make the AMERICAN FOOD JOURNAL a potential factor in the food field. Our entire effort during the past six months has been made toward building up circulation. Our results have been indeed gratifying. Not only are we securing splendid returns from America, but our foreign subscription list is gaining every day.

Our efforts have been particularly concentrated on domestic and cooking school teachers, dietitians and teachers of dietetics. The response seems to indicate that there is a decided need among this class for an authoritative magazine entirely devoted to food subjects. We thoroughly believe that the average food expert rather relishes food articles written in a way to appeal to their human interest rather than serving up highly technical matter. It is along this line we expect to operate.

Criticisms, suggestions and comments will be most heartily welcomed.

C. A. PATTERSON,
Publisher.

**In Cooking and Baking**

have you ever tried Swift's Premium Oleomargarine? If not, you will find it a delicious revelation.

For baking and cooking in general, where fats are used, Swift's Premium Oleomargarine fulfills every demand. The result of your cooking skill, whether a steak or a dainty concoction, will be materially enhanced by the sweet delightful flavors so noticeable in products where Swift's Premium Oleomargarine is used.

Swift's Premium Oleomargarine tastes good, because it is good. Made of the very choicest materials obtainable, in light clean factories under government supervision, it could ***not*** be otherwise.

Instead of cooking and baking with what you have always used, try Swift's Premium Oleomargarine today. Once you try it, we venture you will always use Swift's Premium Oleomargarine.

**Swift & Company**
**U. S. A.**

It's unvarying uniformity in quality, flavor and color has made Libby's Mustard a staple in tens of thousands of homes

# Are you getting this profitable business?

Right in your own community there are scores of families at whose tables salads are regularly served.

Naturally, salads call for salad dressings. And invariably it has proved true that where Libby's Salad Dressing is featured by the grocer, a steady, consistent demand is created. A tremendous advertising campaign using entire pages in the leading national magazines has made this salad dressing known to more than eighteen million housewives all over the land.

Concentrate on Libby's Salad Dressing—and your sales efforts will be rewarded by steady, permanent demand, good profits, frequent turnover, and the satisfaction of pleased customers.

**Libby, McNeill & Libby, Chicago**

Libby's

# Camouflaged Advertising

## Butter Interests Launching a Campaign in Which It Is Claimed Oleomargarine Is Treated Unfairly—Claims of Government Observations on Oleomargarine Not Substantiated by Surgeon General

*By John T. Ashcraft*

THERE is much for food oil producers to learn about the methods of buttermakers who are eternally fighting the best uses of food oils.

A great advertising campaign has been organized to promote "a larger consumption of dairy products." This is proper and right, and the enterprise is to be commended, *provided, it is fairly and honestly conducted.* Is it being so conducted?

Mr. J. J. Harvey seems to have been designated to prepare certain parts of the advertising matter. In an address read before the Allied Associations meeting at the Great Northern Hotel June 5, 1919, he explained the theory on which he wrote "The Foster Mother of the World." He says he has undertaken to re-write Dr. McCollum's "wonderfully interesting story of nutrition, using simplified language so the average child and mother could read and understand it fully." He says that Dr. McCollum cautioned him that,

> "The booklet must be written in such manner that the reader would not get the impression that it was written from the standpoint of advertising dairy products . . . therefore," he said, "my task was not one of material, but rather a problem of the employment of elementary terms and phrases *and camouflaging the real purpose of the story.*" (Italics ours.)

We have not had the pleasure of examining a copy of "The Foster Mother of the World" and so we do not know to what camouflaging methods Mr. Harvey resorts. In this paper of his, however, he says the consumer should be:

> "Led to see that milk protein is a better body builder than is meat protein."

And Dr. McCollum says in his "The Newer Knowledge of Nutrition":

> "The proteins of milk are far superior to those of any foods derived from vegetable sources," and "the protein factor in milk may enhance the value of the proteins of the remainder of the food."

*Has condensed, evaporated and powdered milk decreased the demand for fresh milk?*

*Denmark, one of the greatest butter producing countries, shows the greatest per capita consumption of oleomargarine.*

*When there has been a decrease in butter production it has never been because oleomargarine was crowding it, but due in every case to crop shortage, decision of farmers to specialize on other products, etc.*

*With the passing of liquor, ice cream in sodas, etc., is creating a demand for milk far in excess of production.*

*The production of oleomargarine has trebled in the past four years, yet butter has not suffered.*

Mr. Harvey then underscores: *"There is no substitute for butter."*

But Kellogg & Taylor in their amount of growth producing splendid book "The Food Problem" say:

> "In growing children a certain amount of the fat taken ought always to be milk fat. *If the amount of milk that furnishes the balanced protein be present in the diet of the child,* we may be sure that the essential amount of growth producing substance is also present. . . . In the per capita ration of a half pint of milk per day is included the butter fraction that is deemed essential for the health of our people."

And Dr. McCollum says:

> "It is easily possible and practicable to give the young child what he needs of this growth promoting substance in the form of milk and eggs and still allow him to eat a butter substitute on his bread."

And Prof. Graham Lusk of Cornell University Medical College says:

> "If one takes a pint of whole milk daily, or even as we have seen cabbage or beet tops in its stead, one may take fat in the form of oleomargarine or cotton seed oil without possible prejudice to health."

This cry, "there is no substitute for butter," is pure camouflage and in the same class of camouflaging as that practiced by other big butter authorities of which the following are probably fair representatives:

In The Chicago Dairy Produce, April 22, 1919, page 26, occurs this paragraph:

> "The government has been making observations of soldiers who have been eating oleomargarine and comparing them with soldiers who have been furnished butter. It found the former were not capable of as much endurance as those who used butter and the conclusion is that all soldiers will hereafter be given butter."

The Surgeon General was asked to advise if any observation or publication of the kind referred to had been made by the Government. He replied:

> "So far as known to this office no such tests as those quoted from The Chicago Dairy Produce have been made in the army. The Section of Food and Nutrition of the Division

of Sanitation has conducted numerous dairy studies and its representatives have visited all the camps in the country. No record of any such test of the comparative merits of butter and oleomargarine have been made.

"Upon scientific ground there is no reason to suppose that oleomargarine containing 10 per cent of butter fat as required by army specifications is not in every respect the equivalent of butter. The army has purchased enormous quantities of oleomargarine prepared under these specifications and doubtless will continue to do so for it has given better satisfaction as regards keeping qualities than butter."

Then in an editorial May 30, 1919, Hoard's Dairyman said:

"Wounds of soldiers fail to heal properly when fed on butter substitutes. When butter was given the wound healed more rapidly and normally."

This editorial statement was communicated to the Surgeon General with a request for copy of the Army Surgeon's report giving the facts in full.

To this request the Surgeon General replied:

"So far as this office is aware, there is no evidence that 'Wounds of soldiers fail to heal properly when fed on butter substitutes. When butter was given the wounds healed more rapidly and normally.' "

The great butter advertising campaign seems to be projected into a realm of camouflage rather than into the realm of fact; and this camouflage seems to be intended to conceal an effort to increase the price of butter by creating suspicion and prejudice against oleomargarine, rather than by improving the quality of butter. Is such advertising fair and honest?

# Shall We Tell Student Girls That Advertised Goods Are Better?

*By Albon L. Holsey*

*Secretary to the Principal, Tuskegee Institute, Alabama*

"AND what is Crisco," eagerly inquired the girl.

She was a second-year student in Domestic Science and according to her record card was a very bright student. Curiosity had prompted me to ask her about certain well-known advertised food products and her replies showed a lamentable lack of acquaintance with standard brands. When I asked about Crisco, she gave the above reply.

My next question was whether or not her Domestic Science teacher had ever told the class about Dr. Harvey Wiley, or the meaning of the star opposite advertisements in Good Housekeeping. To all of which she answered, "No."

A little later, I talked with her teacher and she confessed that she "looked at the advertisements, sometimes" but that it had never occurred to her to mention them to her students. "I follow my text-book" she added.

"Take baking powders—" I began.

"Oh," she interrupted, "I tell my girls about the different kinds of baking powder. Just today we had a lesson which compared cream of tartar and alum powders."

"Well, did you tell them about the popular brands now sold in our stores, and advise them where to look on the can so as to know whether or not the powder may contain alum."

"No," she admitted, "They can judge that for themselves, can't they."

This young woman teacher was a personal friend so I could say to her frankly, "Of what use is the text-book unless you are going to apply its principles to actual conditions such as the student girl will face when she leaves school and becomes a daily purchaser of food products in cans and packages."

So there we have told briefly the circumstances leading up to a later conversation the writer had with Dr. Moton, Principal of Tuskegee Institute on this same question. He caught the point in an instant and replied somewhat as follows: "the largest part of the money for household goods and food products is spent by women, and there are many phases of merchandising and advertising, which, if known to the woman in front of the counter as well as to the man behind the counter, will help both to greater economy in their daily transactions of buying selling."

As a result of this conversation with Dr. Moton, who readily gave his consent for the lecture to be added and a subsequent conference with Mrs. A. D. Zuber, instructor in Home Economics at Tuskegee, there was started at Tuskegee Institute last February a series of lectures to the advanced students in Domestic Science on the subject of the economic value of advertising. The lectures were correlated with demonstrations, and exhibits of nationally advertised merchandise and other illustrative material in order that they might have a wider acquaintance with trade-marks, trade names and advertising slogans.

The young women were told that each advertisement is virtually a promise which the advertiser must live up to; they were told the relationship of the producer, distributor and consumer, and how advertising stabilizes prices and keeps the arteries of trade open for an easy, consistent flow of merchandise. Finally, they were warned against untruthful advertisements and fraudulent trade practices. Several of the lectures were devoted to a recital of the many conditions and practices which have been exposed by Dr. Wiley, Prof. Allyn of Westfield. Samuel Hopkins Adams in the New York Tribune and the Vigilance Committee of the Associated Advertising Clubs of the World.

To the young women who received the lectures, advertising has a new meaning, for we have taken advertisements from magazines and daily papers and "picked them to pieces" in the class just to see if they measured up in frank, honest statement and reasonableness of bargain or service offered. It is fair to assume, therefore that when they become home-makers, the daily and weekly tasks of buying goods over the coun-

(Continued on page 39)

# Standardizing the Hamper

## The Varieties Both in Sizes and Shapes of Vegetables and Fruit Hampers Has Been a Source of Much Trouble for Shippers and Deceiving by Unscrupulous Dealers Made Easy. Mr. Downing is Making Efforts to Eliminate This by Standardizing Hampers to a Few

By Fred P. Downing, Bureau of Markets, U. S. Dept. of Agriculture.

FEW of us realize when we sit down to partake of an ordinary dinner, in which fresh fruits and vegetables constitute an important element, of the great problem confronting the shipper, carrier or jobber, each of whom has his duty to perform in connection with the packing, loading, preservation in transit or the marketing of these perishable foodstuffs. Through various instrumentalities the produce of distant markets is brought to our very doors in prime conditions. In the winter months, for instance, the New York markets are supplied with strawberries and oranges from Florida, cauliflower and lettuce from California and green onions and radishes from Louisiana.

Many of the problems confronting those engaged in supplying the country with fresh fruits and vegetables have been solved, others have only been partially solved. In this latter class may be included the problem of proper types of shipping receptacles used in the marketing of perishables. A visit to any wholesale district in our larger cities will reveal a most confusing array of baskets, boxes and crates of every conceivable size and shape. The uninitiated wonder how business can be carried on under such confusing circumstances.

It is the purpose in this and in following articles to consider the need of standardizing fruit and vegetable containers by Federal Legislation. This issue will be devoted to a study of one of the most widely used shipping containers—the hamper basket. Future articles will take up a discussion of the berry box, till basket, round stave baskets, climax baskets, splint or veneer baskets and other containers.

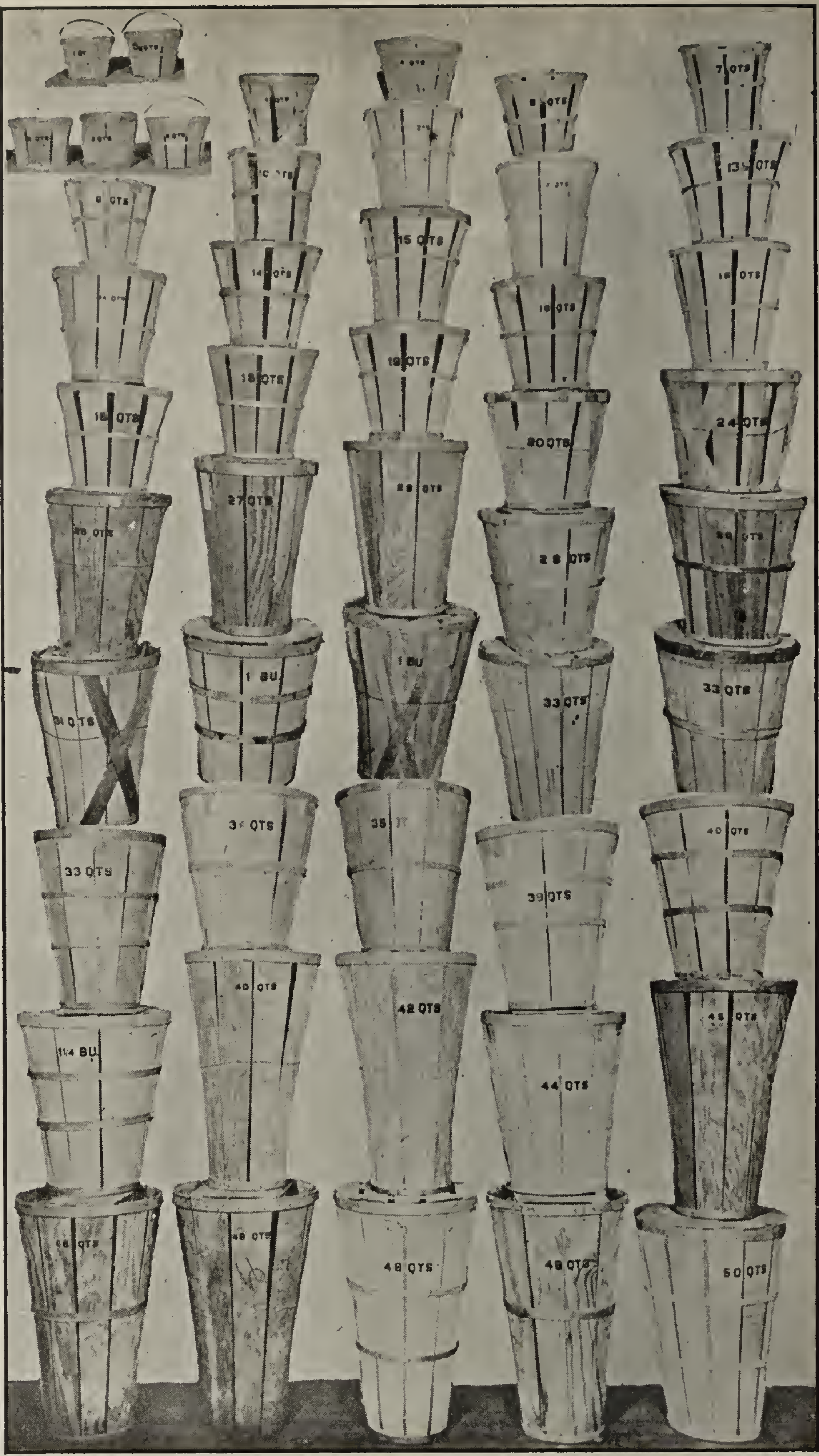
The hamper basket is shaped like the the frustrum of a cone. It has a solid flat bottom, flaring sides and a round flat cover. This type of shipping package is very popular in the Eastern and Southern states and is used by growers in most of the states lying between New York and Texas. Each year about thirty million of these baskets of all sizes are manufactured in about one hundred factories located near the large producing sections or in the timber areas. Some of the larger factories turn out from two hundred thousand to five hundred thousand baskets annually and one firm is known to have an output of over one million baskets. Formerly this basket was made almost entirely by hand over iron forms, but the use of automatic hamper machines turning out five hundred to eight hundred baskets daily, has enabled the manufacturer to greatly increase his output.

The popularity of the hamper is due to a number of causes. It is a light, compact package and nests readily when shipped empty. Having a narrow bottom, it can be conveniently placed between rows of vegetables in the field and being put together in the factory, the grower is spared the bother of assembling the package, which must be done invariably in the case of the crate. When properly made the package is rigid and the spaces between the staves provide the means of ventilation. On the other hand the railroads object to the package, claiming that it will not load well in the car and as a consequence they are obliged to pay many claims for damage in transit. It is true that hampers do not load as compactly in a car as cates, but when properly loaded the package has carried long distances. The fault lies rather in the use of baskets of too light construction, improperly loaded. Hampers made with bottoms of unseasoned lumber, of staves full of knotholes cut one-ninth or one-tenth of an inch in thickness and stitched to hoops with light gauge wire certainly cannot be expected to carry sweet potatoes, cucumbers and similar heavy vegetables without breaking.

Manufacturers, in the desire to secure orders, have catered to the demands of growers for a cheap package and in doing so have sacrificed strength for cheapness. The shipper who uses one of these flimsy baskets is "penny wise and pound foolish." Frequently, he stands to lose one hundred dollars when he saves one dollar in the cost of his baskets. The railroads are often expected to make good these losses in transit and are sometimes called upon to pay unjust claims. The railroads, however, have been at fault in the past in accepting perishables in such light, flimsy containers and the breakage is furthermore often brought about by unnecessary rough handling. In order to reduce claims the United States Railroad Administration has appointed a committee to draw up standard specifications for shipping packages and to incorporate these specifications in the railway tariffs. If this is done great care must be exercised to see that in the desire to eliminate claims they do not go to the other extreme and unnecessarily increase the thickness of the staves, slats and other parts of the container. Any unnecessary increase in the cost of the container must be borne eventually by the consuming public, being passed on by the manufacturer, carrier, jobber and retailer.

Opinions differ as to the proper method of securing standard specifications for fruit and vegetable containers. Some shippers think this can best be done by Federal Legislation and do not take kindly to what they call unnecessary interference on the part of the railroads in what they believe is none of the railroad's business. They claim that if the railroads fix the dimensions of packages they are practically fixing the standards of measures of the country. This, they say, is the province of

Congress and not of the railroads.



# AN OBJECT LESSON

## Hampers Currently in Use

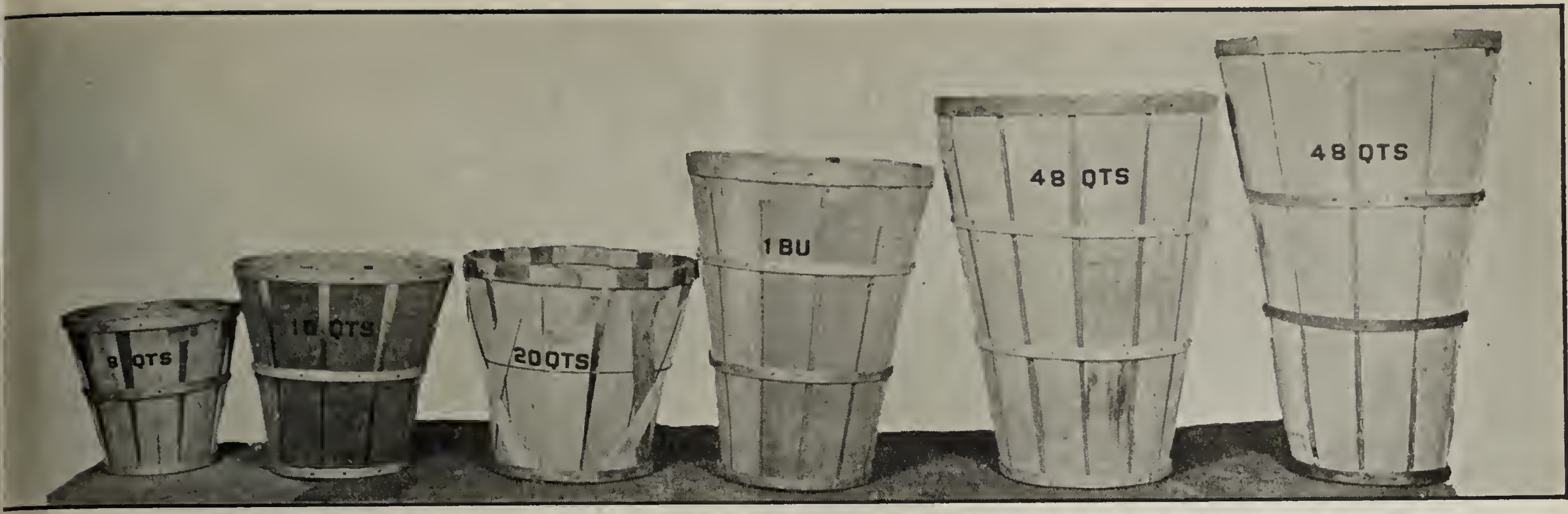
That an evil exists is acknowledged by all. This is particularly true in the case of the hamper. Not only has this basket been made entirely too frail, but the trade today is using an extremely large number of sizes. A glance at the illustration appearing in this number will make this self-evident. There are nearly as many sizes as there are quarts in a bushel. Furthermore, some of these sizes are made in four or five dimensions. For example, the bushel hamper is made in four different sizes. Some bushel baskets are seventeen inches deep, others twenty-two inches. The tall baskets have an eight and a half inch bottom, whereas the shorter baskets have a ten-inch bottom. This simply adds to the confusion. (See illustration with this article).

The smaller baskets, from one to eight quarts, are not used as shipping containers. They take the place of measures in some of our Eastern states. The ten and twelve quart baskets are used in New York state, in marketing peaches—the thirteen quart basket is intended for cherries—the fourteen quart basket is nothing but a short half bushel. Its use has become so common in certain Eastern states that the sixteen quart basket has disappeared. This is the case in Baltimore. It is estimated that one-third of the half bushel peach baskets used today are short half bushels.

The twenty quart or five-eighths bushel brace basket is used chiefly in the states of New Jersey, Delaware, Pennsylvania and Maryland. It is called the tomato basket and is used very extensively in hauling tomatoes to the canneries. It has a legitimate field, is not a short package and if not permitted would work a hardship on the growers of that section, greatly increasing the cost of field operations.

The seven-eighths bushel or twenty-eight quart hamper is used largely in the South, where there has never been any effective weights and measures legislation. It masquerades as a bushel basket in the Northern markets. This basket is very common in Louisiana, Mississippi, Georgia and Florida. It has been driven out of the states of Texas and New Jersey by State Legislation. About twenty-five per cent of the so-called bushel hampers manufactured today are short bushels.

The five peck or forty quart hamper is manufactured only in the States of Delaware and Virginia and is used for light commodities like kale, spinach, lettuce, etc. The New York lettuce hamper holds about forty-four quarts and the tall, slender Florida lettuce hamper holds anywhere from forty to forty-eight quarts, according to the generosity of the packer. These are a few of the sizes of hampers now on the market. It is needless to say that the result is enough to baffle even those who have devoted years to the produce business. Of course, the unsuspecting public are made the victims of circumstances. Some shippers try to condone the above conditions, alleging that the baskets are trade sizes and the result of years of study and experimenting. They fail to realize the deception in the long run works against their best interests. They are either dishonest or play into the hands of the unscrupulous



# PROPOSED STANDARD HAMPERS

## Multiplicity Aids Deceit—A Visual Argument for Standardization

*Here we show the results of the investigations of Mr. Fred P. Downing, of the Bureau of Markets, Department of Agriculture, on "Standardizing the Hamper," which we commend to your careful perusal. Mr. Downing has had charge of the investigations conducted preparatory to drafting the proposed law prescribing dimensions for Hampers and Round Stave Baskets, as well as being active in framing the measure.*

*The photographs reproduced herewith, contrasting the proposed six standard hampers with the forty-nine varieties currently in use, emphasize the argument for uniformity in packages more than words can do. The opportunity for deceit, afforded under present practices through permitted use of the great variety of sizes and capacities in this kind of container, is at once made apparent.*

*The Joint Council, composed of the International Aple Shippers' Association, the National League of Commission Merchants, and the Western Fruit Jobbers' Association, has endorsed the five hamper containers of capacities—one peck, one-half bushel, one bushel and one and one-half bushels. The five-eighths bushel (twenty quarts) hamper was endorsed for use as an open container only.*

merchant, who, in order to avoid the penalty of state or local laws, sells his produce by the basket instead of by measure. The honest, fair and legitimate methods of sale are by standard weight, standard dry measure or by numerical count.

The remedy for the above chaotic condition is federal legislation. In the absence of such legislation, several of the states desirous of protecting their citizens, have passed package laws. There is grave danger of such laws conflicting with similar laws in other states to the great detriment of shippers carrying on an interstate business. Congress should, therefore, exercise its right to regulate commerce between the several states by specifying what types of baskets can be lawfully shipped.

It is believed that this standardization should be along three general lines: (1) standardizing capacity, (2) standardizing dimensions, (3) standardizing strength. A thorough canvas of the various producing sections of the country has resulted in the conclusion that five sizes of hampers are ample to satisfy all the legitimate requirements of the trade. These sizes are the 8-quart or pack basket, the 16-quart or one-half bushel basket, the 20-quart or five-eighths bushel basket, the 32-quart or bushel basket, and the 48-quart or one and one-half bushel basket. To cut out any of these sizes would be detrimental, both to the trade and to the public interests. To add other sizes to this list would simply mean the legalizing by act of Congress of useless and unnecessary packages. It will be noted that two styles of 48-quart hampers are shown in the illustration. The tall, narrow hamper used universally in Florida for lettuce and cabbage would not be popular in other sections of the country where hampers of somewhat greater diameter are in use.

It is believed advisable to standardize the dimensions of hampers by act of Congress. This will enable the purchaser to determine whether he has been sold a standard or a non-standard basket simply by taking the measurements at the top, bottom and sides of the basket. It will not be necessary to call in an inspector or to take a chance on the baskets being unlawful, inasmuch as the dimensions determine the capacity. The law can be more easily enforced, as inspectors can detect a non-standard package at a glance in their field work, but of even greater importance will be the working out of uniform and correct methods of loading hampers in freight cars for shipment to market.

In order to carry well, baskets must be loaded snugly. If there is any loose space in the car the baskets will shift their position, many will be broken and the contents injured. This is usually the case where baskets of several dimensions are used. The importance of proper loading cannot be too strongly emphasized. The grower often fails to realize this and much education along this line is necessary. Again, the standardization of dimensions will be a great boon to the basket manufacturer, cutting out duplication of forms and the standardization of the raw materials. This will have a tendency to cheapen the cost of manufacture.

It is not believed wise to arbitrarily and once for all fix the dimensions of baskets. It is very probable

that someone will, in the future, work out dimensions of baskets that will carry better, enable the manufacturer to produce the package more economically, or be better suited to the packing or grading of the contents, and there should, in other words, be some elasticity to the law. This is taken care of by allowing the Secretary of Agriculture for good and sufficient reasons to modify the dimensions, but not the capacity of baskets.

Finally, baskets should be standardized as to strength. The weak, flimsy package will not carry to market and the result is damage claims running into the millions of dollars. The question of proper construction of hampers can best be left to regulation, and in any law only a few of the principal elements of strength, over which there can be little or no disagreement, should be incorporated, such as the thickness of staves or of the bottom piece. The details of construction, such as gauge of wire used in stapling, number and kinds of nails or tacks used, the number and placing of outside hoops or cross braces, are questions that cannot be well incorporated into any piece of legislation.

The following table gives the essential features, showing the dimensions and capacity of the baskets, incorporated in the proposed bill, standardizing hampers:

| Capacity | Inside Diameter of Top |
|---|---|
| Peck | 10⅜ in. |
| Half-bushel | 13 in. |
| Five-eighths bushel | 14¼ in. |
| Bushel | 15⅛ in. |
| 1½ bushel No. 1 | 16¼ in. |
| 1½ bushel No. 2 | 16¾ in. |

| Inside Diameter of Bottom | Inside Length of Staves | Thickness of Staves | Thickness of Bottom Piece |
|---|---|---|---|
| 6½ in. | 9⅝ in. | 1-10 in. | ½ in. |
| 8½ in. | 12 in. | 1-10 in. | ⅝ in. |
| 9 in. | 12⅞ in. | 1-9 in. | ⅝ in. |
| 9 in. | 19 in. | 1-8 in. | ⅝ in. |
| 9 in. | 26 in. | 1-6 in. | ⅝ in. |
| 10 in. | 23 in. | 1-8 in. | |

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# Milk and Cream Defined

U. S. Department of Agriculture.

Definitions and standards for milk and cream adopted by the Joint Committee on Definitions and Standards and approved by both the Association of American Dairy, Food and Drug Officials and the Association of Official Agricultural Chemists, to be used as a guide for the enforcement of the Food and Drugs Act, have been published by the United States Department of Agriculture in a circular, "Food Inspection Decision 178."

Milk is defined as the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and five days after calving, or such longer period as may be necessary to render the milk practically colustrum free.

Pasteurized milk is milk that has been subjected to a temperature not lower than 145 degrees Fahrenheit for not less than thirty minutes. Unless it is bottled hot, it is promptly cooled to 50 degrees Fahrenheit or lower.

Skimmed milk is milk from which substantially all of the milk fat has been removed.

Buttermilk is the product that remains when fat is removed from milk or cream, sweet or sour, in the process of churning. It contains not less than eight and five-tenths per cent of milk solids, not fat.

Cream, sweet cream, is that portion in milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force. It is fresh and clean. It contains not less than eighteen per cent of milk fat and not more than two-tenths per cent of acid-reacting substances calculated in terms of lactic acid.

Whipping cream is cream which contains not less than thirty per cent of milk fat.

Homogenized milk or homogenized cream is milk or cream that has been mechanically treated in such a manner as to alter its physical properties with particular reference to the condition and appearance of the fat globules.

The composition of the milk produced by different breeds of dairy cows varies so greatly, say the food officials, that it is not practicable to fix a standard which is applicable in all localities in the United States and its territories. It is, therefore, left to the State and municipal authorities to adopt such standards as their local production conditions may warrant.

# Vagaries of the Food Market

## When Some Things Slump and Others Soar, What Is the Meaning of "Readjustment"

THERE has always been a popular idea—not necessarily held in trade circles—that what was commonly referred to as "the period of readjustment" in commodities meant a decline from the war prices. But the peculiar conditions just now prevailing indicate that it is by no means a one-sided movement, either way.

The situation presented is especially interesting. Every day one finds the daily papers full of stories of the sudden decline in butter, eggs and one or two similar articles, and the prices really do show something like a greased toboggan. Not only are the weather conditions such in the producing country as to promise an early commencement of increased supply, but in the matter of eggs, the flood has commenced fully a month earlier than usual, forcing everyone to let go their holdings at almost any price.

The movement of Uncle Sam with reference to his army, navy and relief supplies—especially butter—is only adding fervor to the decline by threatening to get from under. In trade circles it amounts to enough of a sensation to lead to accusations of bad faith on the part of the government, for goods held by owners against expected purchase by the government are now said to be in imminent danger of being thrown back on the hands of holders for sale, at a time when the values are seriously impaired. Many are those who expect to see heavy losses sustained and it would not be surprising if they do develop to find some substantial war claims filed against the government.

The decline pervades other lines, where the values have been sustained by deferred hopes and normal weather guesses, but in many lines—canned foods, dried fruits, etc.—the resumption of the law of supply and demand has only started the kite soaring upward in response to the known scarcity. Everyone knew there were shortages in these goods and with the government a large buyer and holding its purchases, the sudden awakening of foreign demand was bound to stiffen values.

It is easy to see, therefore, that there are two sides to readjustment. Everyone in the trade would welcome a legitimate decline in prices. Everyone knows that prices of food are too high for safety and for comfort. Everyone is anxious to help along the return of lower levels by a reasonable writing off of values. But with statistical facts undisputed, with farmers holding fast to their ideas of high costs, due to labor, fertilizer, etc., and with new contracts for canning stock being made at high levels, there isn't much hope just now of a material decline.

Therefore the unusual situation is presented of one end of the market slipping down and the other sliding up. There is no longer any Hoover limitation based on "cost plus," but only the remnant of general insistence on fair margins of profit. No one shows any sign of speculative inter-buying or violating the war-time principle of one-sale-only, but there are many grocers who wish someone could control and stabilize the situation. Not that it isn't generally healthy, but it is distinctly uncomfortable.

### That Wicked "Food Trust" Again

By the way, it is interesting to note that the professional agitator has survived the war; the fellow—or the newspaper, or woman's society—who is always ready to tell you that he did it whenever something in the food line drops a few points. Now that prices of butter and eggs are declining sensationally, he says he did it and, of course, to a considerable extent gets away with the claim.

Certainly no one can be out of sympathy with the general enterprise of getting food prices down to the limit of the average pocketbook, but it is deplorable that, after the splendid showing of patriotic effort to help the government, the grocer is still to be pilloried for the glorification of the politician and reformer.

By the way, if this "Food Trust" is so powerful in this city or that town, or the other village, how does it happen that the situation strikes them all alike at the same time and that their "wicked connivance" weakens and collapses alike in New York, New Orleans, San Francisco, Seattle and Minneapolis, not to mention way stations? If an ambitious women's club in one place did it, why did it also happen in some other place outside his glorified realm at the same time? It does seem regrettable that observers cannot have the truth of the cause and effect of some of the price fluctuations.

Of course, refusal to buy does have an effect to force holders down in their prices, but that need not make it out a "boycott." It may be that the wicked speculator with eggs in storage may get scared, but the hens are more likely the cause than some threat of a reformer. Refusal to buy is less effective as a threat on the average business man as a demonstration that the conditions for trade are on an unhealthy basis.

### Motives of Food Administration Fines

The passing of the various subsidiaries of the Food Administration, especially in localities, is uncovering, through the superabundance of their self-admiration, a peculiar sidelight on the motives of penalty. In one state, for instance, the administrator boasts that when it had more than a million to spend it actually turned back $758,719.77 unexpended. Surely as an exhibit the well-informed will never cease to marvel at the fact; it is so wholly different from all tradition of public officialdom and Commission Government.

But the more interesting thing is its boast as to how much money it milked out of the grocers for the Red Cross. The same thing is heard in other States: of pride that they forced fines and penalties out of the dealers for large sums, which went to war benevolences.

If these fines actually taught the offenders lessons, there is good ground for congratulation in the interest of higher morality in trade: but if the law was only used as a bludgeon to make a lot of business men, not all crooked, "come across," it isn't without an oblique slant on its own snow-white record of morality. Dealers, like any one else, ought to be made to behave, but they need not necessarily be harnessed up as goats to draw the official chariot in its triumphal parade.

### The Power of Trade Idealism

The National Canners' Association long ago proved that supervision is not undesirable but rather the opposite. The experience of the meat packers has been the same; so has that of the bottlers-in-bond. Nothing adds greater stability and assurance to a product than a governmental stamp which is, unhappily, usually regarded as the Government's O. K., in quite as broad and undefined a range as the bill above quoted suggests.

But the Canners' Association, by setting up its own inspection and insisting that goods must be packed up to standards policed and established and enforced by the trade themselves, indicates the trend of trade association sentiment. The sardine packers, especially those of Maine, have shown the value of such self-discipline. They contribute large sums through a voluntary tax of so much per case, to carry on the work, and the result has been to not only greatly improve the Maine sardine, but to give it a better reputation. That it had its effect is testified by a recent report to the effect that last fall only 275 hogsheads of fish were found unsuited to canning, as against 1,080 in 1916 and 1,380 in 1917.

The Maine sardine—not a sardine at all by the way—is getting more respectable every year as a result of this policy, and canners find that higher grade products pay well; while the California sardine, a true pilchard, is by many regarded as the equal of the French article, and is also kept high grade by the influence of inspection.

### England Sees End of Ration Books

At a recent dinner in London the British Food Administrator, Mr. Clynes, announced that the rationing system in England will expire finally on April 19. Margarine will be the first of the rationed foods to be de-rationized, and that step will be taken almost forthwith. De-rationing will follow in regard to other foodstuffs much more rapidly than seemed at all likely a few weeks ago. It is calculated that in a month's time the supply of sugar will be much more plentiful, and the increased importation of beef and mutton from the Argentine is improving the meat situation. Butter will probably be the last of the rationed commodities to regain its freedom.

The British ration system has been a prodigious enterprise. For printing the ration books a State printing office was established. The original estimate of the Ministry of Food of their requirements was about 30,000,000 ration books, containing five pages.

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## What Are Vitamines?

Vitamines are difficult to describe, but are absolutely necessary to health. According to Prof. Bayliss, of University College, London, there are at least three different kinds. The anti-neutric vitamines, which include those that prevent beri-beri; the anti-scorbutic vitamines, effectual against scurvy; and the vitamines that are necessary for growth. Raw food contains a far greater amount of vitamines than cooked food. Boiling in alkaline water is especially prejudicial, and destruction is also effected by most of the processes of drying and preserving, including all tinned foods. Oranges, lemons and lime juice contain an exceptionally large proportion of anti-scorbutic vitamines. Sugar is lacking in vitamines, but they are found in honey. Milk contains them except in the sterilized form. Cereals that have lost their outer coats, such as unpolished rice, are deficient in them. Raw meat, if only we could eat it, would yield a much richer supply of vitamines than we can obtain from it when cooked. To sum up, Prof. Bayliss assures all anxious inquirers that "Nobody who lives on a mixed diet —especially if it includes a fair proportion of fresh fruit and vegetables —need worry himself about vitamines. If they are absent from one article they are likely to be present in some other."

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## Plan Food Depots to Hit Ol' H. C. L.

Construction by the government of a federal fish and food warehouse at Boston, which would be the first of a series to be built in all the large cities of the country, is proposed in a bill introduced by Representative Fitzgerald, Republican of Massachusetts. The cost of the warehouse was estimated at $2,000,000.

"Establishment of such government-operated warehouses," Mr. Fitzgerald declared, "would bring a solution to the present high price of food. Great quantities of perishable goods are being thrown away daily which could be saved if there were places to store it until the demand for it became greater."

## Safety in Food Products

The food adulterer is still with us. Only the most flagrant offenders of this sort have been made subject to court action, but since the Federal Food and Drug Act was passed there have been several thousands of these. Many thousands more, equally guilty but of less serious offences, have, on promise of correction, escaped criminal prosecution and sometimes seizure of their stocks. The higher prices obtained for all commodities that are actually consumed seem to have had but little effect on maintaining food purity. Soft sardines still come from Maine, spoiled salmon are shipped from Washington, frozen oranges reach New York from California, and sweated grape fruit is brought from Puerto Rico. It is encouraging to learn that only a few unimportant firms now do these things and that the enforcement of the law has corrected many such in the use of misleading brands and labels. A picture of an olive tree and a man from Italy on a can of cottonseed oil is a camouflage met far less frequently than formerly.

The most cheering thing in the latest official summing up of the results of the comparatively recent food law is that while the contamination of food, often due to carelessness or ignorance of methods of preparation, shows some abatement, and the substitution of a cheaper article for a more expensive one is frequently practised with injury to the purchaser's pocketbook alone, the cases in which it is charged that ingredients harmful to health have been deliberately added to foods are growing fewer in number. Such ingredients are usually acquired through contamination in process of manufacture, zinc, copper or arsenic being readily taken up from a container not properly treated. As injurious preservatives are unnecessary few manufacturers with a built-up business at stake care to risk prosecution and detriment to the reputation of their products by adding any substances held to be injurious.

In other words the government has found out that every wise purchaser knows—that well advertised products have gained too great a value to be trifled with by the maker and for that reason are far the safer for the consumer to buy.

# How Much Food Do We Need

## Quantity of Nourishment Necessary for Health Has Been Worked Out Into Mathematical Accuracy by Professor Lusk

Why do we eat? Because our bodies are perpetually expending energy and their parts are continuously wearing out; therefore energy must be supplied and adequate material for repair of the worn parts must be furnished. It is obvious that the man who is doing nothing, taking no exercise, merely resting, is expending less energy and wearing out his tissues less rapidly than the man who is busy all the time; therefore, he needs less food. The quantity of food necessary to maintenance of health has been worked out with mathematical accuracy for men, women and children in every walk of life and under every imaginable condition. In these days of economizing it is highly important for each one of us to know how much food and what kind of food he needs. To give us the simplest and most practical advice on this subject, Dr. Graham Lusk, professor of physiology in Cornell University Medical College, who is recognized as among the greatest American authorities on diet, recently published a book, "Food in War Time" (W. B. Sanders Company, Philadelphia).

Dr. Lusk makes it clear that energy comes originally from the sun, in the form of heat. This is stored up in the plants that are our food and is set free in our bodies, which use it as the source of power behind all our activities.

Heat is indestructible; it can be transformed into energy, and can be recovered again as heat and measured in the form of calories. It is impossible to understand nutrition unless we understnd the meaning of a calorie.

"A calorie is the measure of a unit of heat, or the quantity of heat necessary to raise a liter of water from 0° to 1° Centigrade. Apparatus has been invented for measuring the heat production of a man, an apparatus which is called a calorimeter or a measure of calories. If one puts a man weighing, say, 156 pounds in the box of such an apparatus, so that he lies comfortably on a bed in complete muscular relaxation, and before his breakfast, one finds that he produces 70 calories an hour. Only in certain types of disease is there any variation from this normal, though of course the weight of the man makes a difference in his requirement for energy.

"If, at the same time the subject is in the box, the quantity of oxygen which he absorbs is measured, and if certain other chemical anaylses be carried out, one can calculate the exact amount of protein, fat and sugar which have been oxidized by this oxygen. Now, if one calculates how much heat ought to have been set free from the oxidation of these quantities of protein, fat, and carbor hydrate, it is discovered that the heat which ought to have been produced is exactly that quantity which was measured as having been produced by the man. This measurement represents the basal metabolism of a man at complete rest, when his oxidative activities are at their lowest ebb.

"The basal metabolism as measured by 70 calories per hour in the case of this individual represents the sum of the fuel needed—(1) to maintain the beating of the heart, which every minute of a man's life moves the blood or one-twentieth part of the weight of the body, in a circle trough the blood vessels; (2) to maintain the muscles of respiration that the blood may be purified in the lungs; (3) to maintain the body temperature at that constant level which is so characteristic that a slight variation signifies illness, and (4) to maintain in the living state the numerous tissues of the body.

"Any extraneous muscular movements are carried out in virtue of an increased oxidation of materials and the heat production rises above the level of the basal metabolism with increased muscular effort. For a long time the power for the maintenance of the human machine can be furnished by its own body fat, as is seen in cases of prolonged fasting, but usually the power is derived instead from the food fuel which is taken.

"It has been established as a certainty within a plus or minus error of only 10 per cent that the basal metabolism of a man between 20 and 50 years of age is 40 calories per square metre of body surface. For boys of 12 it is 50 calories, and for boys of 15 44 calories per square metre of body surface. This explains the large appetities of boys.

"Women show a metabolism which is 7 per cent lower than that of men, or 37 calories per hour per square metre of surface.

"The basal metabolism of an average boy of 13 years of age weighing 80 pounds and of a height of 4 feet 10 inches may be calculated as 1,525 calories per day. This is the same that of a man 25 years old, weighing 126 pounds and 5 feet 3 inches tall.

"A boy 13 years old and weighing 156 pounds, his height being 6 feet 1 inch (there are such cases), would have a basal metabolism of 2,300 calories, or larger than that of any grown man given in the table—larger than a man weighing 211 pounds and 6 feet 4 inches in height. I personally know a boy of this age and size. His parents are said to have sent him to boarding school in order to reduce their food bills.

"It is evident from this discussion that the food requirement of boys over 12 years old is about the same as that of men."

These figures are for persons absolutely at rest. They give "the minimal requirement for energy which is necessary for the maintenance of the bed-ridden." Every movement adds to the requirements. F. G. Benedict has calculated the increase needed under various circumstances, and Dr. Lusk gives this in the following table:

| Occupation— | Increase in the basal metabolism in per cent. |
|---|---|
| Sitting | 5 |
| Standing, relaxed | 10 |
| Standing, hand on a staff | 11 |
| Standing, leaning on support | 2 |
| Standing, "attention" | 14 |

But when a man is walking or running, we must add still more. At three miles an hour he needs 1.1 extra calories per hour for every pound of his weight; walking at 5.3 miles an hour, he needs 3.6, and running at 5.3 miles an hour, 3.1 calories.

A man weighing 156 pounds and 5 feet 7 inches in height, walking at three miles an hour, needs 249 calories an hour, made up as follows: basal metabolism, 70; for transporting 156 pounds, 172; for standing, 7. And whatever extra weight he carries must be calculated at the same rate per pound.

Take a man running lightly clad, on a level road in a race for a distance of 40 miles at the rate of 5.3 miles per hour, he would complete the distance in seven hours and 33 minutes, which is a reasonable record. His metabolism might thus be calculated:

| | Calories |
|---|---|
| Sleeping 10 hours at 70 calories per hour | 700 |
| Resting 6 hours, 23 minutes, at 77 calories per hour | 497 |
| Running 7 hours, 33 minutes, at 561 calories per hour | 4,236 |
| | 5,433 |

"It is a matter of record that a man has run between Milwaukee and Chicago, a distance of 80 miles, in about 15 hours. Such an amount of work would have required over 9,000 calories for the day."

The extra calories per hour made necessary by different kinds of work have been calculated to a nicety and all these calculations have been checked by experiments on many thousands of persons in laboratories in many parts of the world. The following table gives the results:

| | Extra calories of metabolism per hour, due to occupation. |
|---|---|
| Occupations of women: | |
| Seamstress | 6 |
| Typist | 24 |
| Seamstress using sewing machine | 24-57 |
| Bookbinder | 38-63 |
| Housemaid | 81-157 |
| Washerwoman | 124-214 |
| Occupations of men: | |
| Tailor | 44 |
| Shoemaker | 81 |
| Carpenter | 116-164 |
| Metal worker | 141 |
| Painter (furniture) | 145 |
| Stonemason | 300 |
| Man sawing wood | 378 |

"To use this table one may seek the basal metabolism of the individual, add 10 per cent for 16 hours of wakefulness when the person is sitting or standing, and then multiply the factors in the last table by the number of hours of work. For example if one takes the individual weight, 156 pounds, one obtains the following requirements of energy if his business were that of a tailor and he worked eight hours a day:

| | Calories |
|---|---|
| Sleeping 8 hours at 70 calories per hour | 560 |
| Awake 16 hours at 77 calories per hour | 1,282 |
| Add for work as tailor 8 hours at 44 calories | 352 |
| | 2,144 |

"After this fashion one might calculate his food requirements had he followed occupations other than that of tailor:

| Occupation— | Calories of metabolism per day. |
|---|---|
| Bookbinder | 2,440 |
| Shoemaker | 2,510 |
| Carpenter | 3,100 |
| Metal worker | 2,900 |
| Painter | 2,950 |
| Stonemason | 4,200 |
| Man sawing wood | 4,800 |

"These figures make no allowance for walking to or from the place of employment."

Now what the the best foods to supply these calories? According to Dr. Lusk a perfect balance diet is made up of corn, olive oil and green stuff. This containes everything necessary to maintain health and strength, including the mysterious but essential vitamines. Without the greens, olive oil would not be nearly so nutritive as butter. But this diet would soon become monotonous to most of us, especially to persons accustomed to meat. Therefore a little meat may be added to the vegetables.

"The flavor of meat is such that it lends itself to the easy preparation of a palatable meal, but this flavor could undoubtedly be as well obtained if the present consumption of meat were cut in two. It is a question of habit, but with the present reduced supply of meat one must adopt new habits. It would be highly desirable if the grain now fed to fatten beef were given to maintain herds of milch cows."

"Whole milk contains everything necessary for growth and maintenance, protein, fat, milk-sugar, salts, and the unknown but invaluable accessory substances. It is of such prime importance that each family should have this admirable food that I have suggested that no family of five should ever buy meat until they have bought three quarts of milk. The insistence by scientific men upon the prime importance of milk has probably had something to do with its rapid enhancement in prrce. This latter factor is greatly to be regretted.

"Splendid health, both of body and mind, the peasants' comparative immunity to indigestion, kidney and liver disease, as well as an absolute immunity to gout, is the alluring prospect held out by the following dietary:

| | |
|---|---|
| Graham bread | 1 pound |
| Potatoes | 2 pounds |
| Vegetable fat | ½ pound |
| Apples | 1½ pounds |
| Milk | 1 pint |

"This bread-potato-fruit diet gives a very excellent basis of wholesome nutrition. The potatoes yield an alkaline ash which has a highly solvent power over uric acid, and therefore, a good supply of these valuable tubers is needed by the nation.

"As to the use of alcoholic beverages, the question resolves itself into several factors. Alcohol gives a sham sensation of added force and in reality decreases the ability to do work. Alcohol is the greatest cause of misery in the world, and, as Cushny has put it, if alcohol had been a new synthetic drug introduced from Germany, its importation would long since have been forbidden. On the other hand, good beer makes poor food taste well. It also frequently leads to overeating. The cure for bad food is to have our daughters taught how to cook a decent meal. After that we can talk about prohibition."

### *Rules of Saving and Safety*

1. Let no family of five buy meat until it has bought three quarts of milk, the cheapest protein food. Farmers should be urged to meet this demand.

2. Save the cream and butter and eat oleomargarine and vegetable oils. Olive oil or cotton seed oil, taken with cabbage, lettuce or beet tops, is excellent food, in many ways imitating milk.

3. Eat meat sparingly, rich and poor, laborer and indolent alike. When a person is exposed to great cold, meat may be recommended, for it warms the body more than any other food. In hot weather, for the same reason, it causes increased sweating and discomfort. In general, twice as much meat is used as is now right, for to produce meat requires much fodder which might better be used for milk production.

4. Eat corn bread. It saved our New England ancestors from starvation. Eat oatmeal.

5. Drink no alcohol. In many families 10 per cent of the income is spent for drink, or a sum which, if spent for real food, would greatly improve the welfare of the family.

6. Eat corn syrup on cereals. It will save the sugar. Eat raisins in rice pudding, for raisins contains sugar.

7. Eat fresh fish.

8. Eat fruit and vegetables.

# Coffee

## Will Prohibition Turn the Public to Coffee Drinking? Will the Old Coffee Shop Replace the Cafe? Much Romance Has Been Spun Around This Well Known Beverage

By ELENOR LEE WRIGHT

Eleanor Lee Wright

ONCE upon a time—but no, this is not a fairy story — just a story of one of the most romantic foods that grace the table—coffee!

How few of us know the marvelous tales that every food can tell! As we linger over a cup of coffee, telling of adventures of ourselves — our friends — making merry — who would think that the mere cup of coffee before us could tell an erstwhile legend so interesting that our own prosaic chatter would pale in comparison?

Once upon a time, way back at the close of the third century, some monks fled from the persecutions of the Egyptian Pharaoh taking refuge in the highlands of Abyssinia where they supported themselves by their flocks and agriculture, goes the story in "Folk Lore of the Holy Land."

One night one of the brethren, whose turn it was to care for the sheep, went to the prior and very excitedly told his leader that his flocks would not go to their fold. They kept frisking about in such a lively manner that he feared that the enemy had bewitched them.

Several days of prayer brought no relief and finally the leader of these refugees decided to herd the sheep himself. As he led them out to pasture he watched carefully to see what they ate.

He noticed that every one of the herd ate the leaves of a certain unfamiliar shrub, which, he concluded, accounted for their restlessness. Then he chewed some of the buds himself and discovered that he was better able to keep awake for the long night services of his form of religion. In short, coffee was discovered!

The superstitions and many other legends connected with early coffee-drinking show that its early career was a most hectic one.

At first it was eaten in the form of a paste and was not used as a beverage.

The origin of coffee-drinking comes to us in various legends as told by several early writers. Nevertheless coffee comes to us bearing the romance of the "Arabian Nights" and the fragrance of Oriental bazaars. Its name is derived from the Arabic "Kahwek" which was pronounced "Kahveh" by the Turks, which, interpreted meant wine or an intoxicant.

In Perisa, it is said, the berries were first pulped, roasted, ground and infused. This interesting innovation was discovered by a drowsy Mufti of the City of Aden when on a pilgrimage, in the middle of the fifteenth century. Shortly after it was introduced in Medina and Mecca, while a half a century later it was used in Cairo.

Many controversies and tragedies followed in its wake. Two doctors in Persia were executed by the order of the Sultan because they proclaimed it to be injurious to the health.

The wandering tribes of Arabians lived chiefly on coffee for ages. They pulverized it and mixed it with butter, making balls of it about the size of a golf ball, placed it in their leather bags and thus maintained their strength and spirits for days of weary, desert travel.

When coffee-drinking days were introduced, much pomp and religious ceremony were enacted by the religious Arabs.

Women were not allowed to brew it—only a man who would exercise the greatest care.

A comparison of modern scientific methods and those of centuries ago proves that some of our modern uses are really centuries-old traditions.

The coffee-maker first roasted the berries in a shallow pan; when half-roasted pounded them in a motar of stone or wood with a huge pestile. Even the religious Arab knew something of time-saving, for while pounding the coffee he placed a huge pot full of water on the fire. As soon as the water boiled the pot was taken from the fire and the coffee-meal added to the hot water. Then he replaced it on the fire and when it boiled up he removed it from the fire, repeating three times.

Serving the coffee was a ceremony. The coffee-maker held in his left hand the number of cups for the guests—each cup being placed inside the other. First a small quantity was poured into the top cup and the same coffee poured in turn into each of the other cups. When the last cup was rinsed the contents were poured into the fire as a libation to the patron of coffee-drinkers.

Only a half a cupful was served, first to the eldest most honored guest. Similar to our modern etiquette, it was improper to offer a full cup to a guest. The offer of a third cup, too, was not looked upon kindly, for these people considered, literally, the saying, "The first cup for the guest, the second for enjoyment; and the third for the sword."

Coffee-houses sprang up everywhere. Feasting and merrymaking were carried on in these establishments. In time they were suppressed because political intriques were planned there.

A bride was honored by the keeper of a coffee-house so the story is told. As she left her home for that of her husband the coffee-keeper poured a cup of coffee on the ground in her pathway so that his patron saint would favor the bride.

The coffee plant has many relatives. Plants that yield quinine, dyes and madder belong to the same group.

The Arabian variety is a beautiful plant growing as high as fifteen or eighteen feet, having pointed leaves arranged in pairs on the slender branches. From four to sixteen fragrant, white flowers grow in clusters in the axils of the leaves. The fleshy fruit is called a "cherry" and changes in color in its various stages of maturity, beginning with a dark green, then yellow, red and finally becoming a beautiful rich crimson. There are two seeds in each fruit—the well-known greenish gray unroasted coffee-bean of commerce.

The producers of the best coffees on the market are conscientious about every step from its cultivation to the packing of the final product ready for consumption.

Hot, moist climate and rich well-drained soil are necessary to the proper production of coffee and for these reasons it is cultivated in the tropics.

Brazil now produces the finest quality coffee in the world, partly because of its wonderful soil and area and partly because of the intelligence of the planters, Central America, the West Indies, Hayti, Mexico all produce coffee, as well as Arabia, Abyssinia, Liberia, Jamaica and the Dutch East Indies.

When the coffee "cherries" are matured they are stripped or picked from the trees by hand and collected in bags or baskets, care being taken not to damage the fruit or the trees. From the coffee plantations the fruit is carried in carts or piped with running water to the place where it is prepared for the market.

The seeds are covered by both a parchment and a silver skin as well as the fruit plant, all of which has to be removed. Two methods are used for this: the older or dry method and the newer or wet method.

In the wet method the cherries are placed in huge vats of water where the well-matured fruit sinks to the bottom and the bad, unripe fruit floats. The poor product is drawn off.

The good quality fruit is usually pulped in a huge machine which looks like an overgrown nutmeg grater. After pulping the fruit is again placed in water to separate the pulp from the seeds. The seeds are drawn off and drained in a huge sieve. Fermentation takes place in two or three days which is necessary before the parchment can be removed. Many washings ensue before the parchment is removed. During the cleasning processes any bad beans present will float so that they can be readily removed.

Before the parchment is removed, the beans are dried either in the sun or by artificial heat. The parchment and silver skin is removed by a peeling machine for the purpose. Great care is taken not to injure the bean.

Brazil has greater natural resources for efficient transportation of coffee than has any other coffee-producing country. Her rivers afford efficient quick transportation to the markets. In Arabia camels carry coffee to the markets; in Africa, negroes; in Central America, ox carts; and in other countries ponies or mules are used.

After the beans are brought to the market they are roasted by methods deemed best by the individual manufacturer and then ground, and sometimes blended, according to the preferences of the consuming public.

The degree of "roast" to which coffee is subjected depends upon its growth as well as the demand of the consumer. In England, for instance coffee is roasted to a less degree than in France or this country.

Blending, too, varies and depends on the characteristics of the various growths. It is an art which words cannot describe but which requires much training and knowledge.

From time to time there has been much discussion regarding the food value of coffee. Years ago an eminent English food specialist, Sir James Crichton Browne, said, "It is an aid to digestion. In moderate doses it stimulates the heart's action, and raises the arterial pressure. It quickens the circulation of blood, and thus ridding the muscles of their waste products, it increases their energy, and during their exercise diminishes their sense of fatigue. Messo has shown that under its influence the work of the first hour may be quadrupled. In coffee, and its gentle stimulating action, we possess one of the most efficacious means of contending with alcoholism. Coffee, too, supports mental labor and the delicious aroma of its essential oil, caffoel, has subtle physical effects that still await analysis."

### LESSON ON COFFEE

For Domestic Science Teachers and Dietitians.

I. Was coffee first used as a beverage?
II. Who discovered coffee?
III. Compare modern scientific methods of preparing coffee with those of early times.
IV. What is the origin of the word?
V. Why is coffee a valuable addition to the diet?
VI. Name three ways that coffee is sold in the market.
VII. Why is egg used in making coffee?
VIII. Describe the coffee shrub.
IX. How is coffee carried to the market?
X. What is the greatest coffee-producing country in the world? Why?
XI. How many measuring cups of ground coffee in a pound?
XII. How many people will one pound of coffee serve?

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# Fewer Wagons Deliver More Milk

The establishment and management of new milk plants, especially for dealers new in the business, are sometimes accompanied with several discouraging features. On this account the Dairy Division of the United States Department of Agriculture has specialists who give assistance to milk plants in getting established and in methods of operation. The assistance given to one organization is interesting, as typical of the work accomplished.

In 1917 an organization of farmers and small dealers near a Pennsylvania town of about 20,000 inhabitants decided to form a central plant and organized for that purpose. Assistance was given the association in establishing and equipping its plant and also in the management of the business. The plant was constructed in July, 1917. Only about half the producers and dealers went into the organization at first, but now the association handles the greater part of the milk consumed in the town, and nearly all the milk producers in the vicinity are members of the organization. Pasteurized milk was put out as soon as the plant was opened and has given much satisfaction. The business of the plant has constantly increased.

The deliveries of milk are made much more economically than before the central plant was established. Five delivery wagons are now used where formerly 15 were required to deliver a smaller quantity of milk in the same territory. The producers are realizing considerably more for their milk and they have more time to spend with their farm work than when they were operating individually. They have also increased their production considerably since the organization was formed. Approximately an 800-quart trade was handled daily when the plant was started, while the present quantity is about 2,000 quarts. An advertising campaign is planned for the near future and by this means it is expected that the consumption of milk may be further increased. The organization has been a marked financial success.

# Where We Get What We Eat

## Food Supply Covers the Globe—Transportation the Biggest Problem

WHY is the cost of food so high? Most answers to that question, according to a bulletin from the National Geographic Society, go no farther than the grocer, the wholesaler, or perhaps the cost of farm labor.

But to trace to their sources many staple edibles found on the American dinner table, one must go beyond State and national lines and frequently across the ocean quoting from a communication to the Society from William Joseph Showalter as follows:

"Could we turn loose our fancy as we dine, we could see a great army of men and women working that we might eat. The appetites of men now levy tribute upon all the continents and all the seas, and where once all roads led to Rome, now they come directly to our dinner tables.

"Let us sit down to dinner and go over the menu and try to list those who have assisted in the preparation of our meal.

"At the top of the list comes olives and salted nuts. The olives, mayhap, are from Spain, the almonds from California, and the pecans from Texas. The salt on the nuts was prepared in New York State. Also we have celery that came from Michigan.

"Then comes the soup. Without a cookbook at hand, this writer will now pose as an authority on the ingredients of soup, but it may be Chesa-peake Bay clam chowder, which certainly has some pepper from Africa in it and other ingredients from far and wide.

"Our fish is salmon from Alaska and our prime ribs of beef came to our table through the Kansas City 'packing town.' Our potatoes came from Maine, our boiled rice from China; our string beans from Florida, and our tomatoes from Maryland.

"Next comes our salad, and it contains—if a man may guess at the contents of salads and dressings—Mexican peppers, Hawaiian pineapple, Sicilian cherries, Pennsylvania lettuce, Iowa eggs, Spanish olive oil, Ohio vinegar, California mustard and Guiana red pepper.

"When we get down to the ice cream, we eat Virginia cream, Cuba sugar, Ecudorean vanilla and Mexican chocolate. The cake that goes with it is made of butter from Illinois, flour from Minneapolis, made from wheat grown in North Dakota; baking powder from Pennsylvania, and other ingredients.

"When it comes to coffee, if we are fastidious, we will have issued a draft on both Turkish Arabia and Dutch Java, or if we are only folk of everyday taste, we will content ourselves with the Brazilian product.

"And so, when we come to reckon up those who have helped produce the raw materials of which our foods are made, we find the colored African savage and the American stock grower; the South American Indian and the California truck farmer; the Javanese coffee picker and the Virginia dairyman; the turbaned Arabian and the New York orchardist; the Chinese coolie and the Dakota wheat farmer; the Mexican peon and the Chesapeake Bay fisherman; the Porto Rican planter and the Hawaiian sugar grower; the Spanish olive packer and the Alaskan Eskimo fisherman.

"Yet all these neglect the matter of transportation. Our food comes to us on the heads of Indians, on the backs of donkeys, drawn in carts by huge water buffaloes, aboard the 'ship of the desert,' on wheelbarrows propelled by Chinese coolies. Steamships, railroad trains, auto trucks, and delivery cars have all played their part in the great work of catering to discriminating appetites.

"Truly, the man who dines well ought to be a deep student of geography, for all races, all nationalities, all types of peoples, all points of the compass, all latitudes—continent, island, river and sea—all must come to him as he looks over the bill of fare and tries to find those things that delight his palate."

All sorts of food experiments were made during the war. At least one venturesome group of college men dined in New York off whale steak without complaining of "after effects". This year the return of warm weather has been signalized at Johns Hopkins University with a banquet on whose menu card locusts figured as the only dish. The professor who led in assimilating them is reported as still alive and in good health. There is really no reason for surprise at either of these variations from the habitual in food. Whale was eaten in the far north long before cetaceans were hunted for their oil, and locusts have been stomached with avidity in many parts of the earth since scriptural times. The puzzle is not that eating customs should give way now and then, but that particular kinds of food should remain taboo in one country centuries after they have been proved nourishing in another.

Who could ever hope to market the snail as an edible in the United States or induce any of our people to class the clammy frog in their list of "juicy morsels"? On the other hand, why do we favor the salty clam, which the Russian abhors, and neglect mussel and periwinkle, both favored items in the British cuisine? Tripe, so European, is an abomination to many of us; yet we accept pork and despise horse flesh. Most of us would die rather than eat snakes, but we think the eel a delicacy. Why have we no rabbit farms, and why, when edible fungi are in question, do we confine ourselves to the mushroom?

In 1918, under the stress of war and of food conservation, new varieties of fish came into use, and some of them are still being landed and sold; under the stimulus of a government campaign all were publicly exhibited, explained and recommended in this city. The only new flesh meat now in sight is that of the musk ox, future rival of the cow and sheep, according to Arctic explorers who have studied the animal in its native habitat. What meanwhile of vegetables and fruits? We have fairly good resources of our own in both fields, and Luther Burbank has made a beginning in their improvement. The seedless orange has established itself among us: enthusiasts believe that we are already on the way toward coreless apples and pears, toward stoneless cherries, plums and peaches.

Then there is the foreign outlook. Hawaii has been sending us its products for years past, and other islands of the seas are eager to compete. The tropics are ready with the

(Continued on page 37)

# The Egg Alternative Compound

## That It Has a Legitimate Place and is Both Useful and Economical for the Housewife if Properly Made, Labeled and Sold Is Claimed

J. E. OLIPHANT

DO food critics weigh all sides of the question before they send broadcast their scathing remarks? History of foods indicates that they do not because they have condemned a great many products which later became accepted foods, irrespective of their critics. Like all specialists, one side of the question only can be seen from their viewpoint. They are undoubtedly honest in their convictions, but are the convictions honest to all?

Regulation of criticism of food products will continue as long as there are minds that do not agree, but a product of merit, which continues to repeat in a given territory cannot be suppressed.

With few exceptions, there has never been a new line of foods started that has undergone such severe criticism as the egg compound or, as is generally termed, "egg substitutes."

Again history repeats itself by condemnation of an entire industry because of the sins of some unscrupulous and dishonest men making a cheap product paraded and sold as a substitute for eggs. It is only necessary to turn the investigations of Professor La Wall or the tests of Commissioner Newman of Illinois to see these substitutes for eggs shown up for what they are.

However, while there are a great many preparations placed upon the market lacking merit, there are also manufacturers of legitimate products who are marketing their article on a fair, honest basis, do not term the product an egg substitute because they realize that if substitution means an exact duplication, that it is an impossibility to accomplish every detail that nature is able to do.

An egg compound is the true conception of this coming food specialty, which, as time goes, will become as generally used as our present oleomargarine products. The one exception insofar as criticism from food specialists are concerned was the oleo product. With it, like all other food products, there are manufacturers who overstepped their rights and the good had to stand the criticism with the bad, but who is there today but would say oleomargarine has done its part in assisting the nation's welfare program.

*We are publishing the following article written by a manufacturer of an Egg Alternative Compound. His contention is that while admitting there are and have been many deceptions in the manufacture of so-called egg substitutes, yet he believes there is a demand for a Compound over half the composition of which is dried eggs, which has many advantages in baking. The author further contends that there is no attempt made to deceive or to convey the idea that this Compound is sold in competition to eggs or that it contains the food value of eggs.*

*Our articles in November and December, 1918, exposed the fraudulent manufacture of egg substitutes. We are not and never could be in sympathy with dishonest merchandising, but this manufacturer believes he is honest in the making, labeling and selling of this product and feels that injustice has been done by condemning all Egg Alternative Compounds, because of the sins of some.*

*In publishing this article, we cannot assume responsibility for its statements or conclusions. We did not see the tests made, but it would seem that any product that will in any way cut old H. C. L. would be most welcome by the average housewife. With fresh eggs selling around the half-dollar mark at the most plentiful season of the year, it would seem that a dried egg compound used in cooking would effect a saving but only where such a product is honestly labeled and sold for just what it is, laying no claim to competitive value of fresh eggs as to the food value.*

—EDITOR'S NOTE.

So it will be with the egg compound business. It must be built upon honest, fair basis to win and those who recognize this will help where help is certainly needed; that of cooking and baking on a more economical basis.

To be an egg compound, the product must contain a large percentage of pure dried egg—most States decree fifty-one per cent, and no doubt this much or more should be used. Dry egg as a basis is then compounded with such food products as will increase adhesive power of the egg.

Here it is that Casein plays an important part. The critic of this product perhaps forgets the excellent food value of casein or does not realize its close resemblance to egg albumen in its chemical composition. Casein is a pure, wholesome milk product reduced to concentrated form.

If it is pure, if it is wholesome, why shouldn't it be used in the manufacture of an egg compound if it is possible to obtain satisfactory results! Pure food Casein will stand a most critical test.

A small percentage of starch is used because it, too, helps in the adhesiveness and, when in combination with other ingredients, it acts in a cooking and baking capacity. Of course, manufacturers have their own ideas as to the proportions of these and other ingredients which go toward making up the product. The one which will stand the test of home cooking and baking in a large way is one which will enjoy the greater sale.

The product which is based upon this principle is, we believe, the one that will eventually win, particularly if the manufacturer does not try to make the housewife believe that a small package will accomplish the results of several dozen eggs. The home maker can rest assured that the manufacturer making modest claims is honestly presenting his product.

Some States object to the use of color following the same idea as they do with oleomargarine. With this eliminated from the product the chance of deception is greatly reduced and the honest manufacturer is willing to conform to all such regulations because he knows that his product, having merit, will stand the test.

To produce lightness, adhesiveness, flavor and to maintain the moisture of the cake or food being prepared is the essential work of eggs in cooking and baking.

To make a "homey test" the same cup cake recipe as that adopted by one of the state commissioners in his test was used to prove the merit of egg compound. A compound containing 51 per cent egg and giving directions for the use of a heaping teaspoonful of powder for each egg was taken as the basis of tests.

Three tests were made: in one test milk was used instead of eggs because some food specialists are making claims that this would prove equally successful; egg was used in the second, and an egg compound, as above described, in the third.

Results—The one where milk was used was a flat failure. It was doughy, sugary and flat. The egg cake was nicely formed and very good during the first day. It was all that one would want from an egg cake. The egg compound cake was not quite as well formed as the egg cake, but it was equally as light and tasty. A thrifty home maker would not pay the difference to have an egg cake. On the second day the egg cake was dry. The egg compound cake was moist, tasty and still well flavored.

At this point a tasting test was made and the egg compound cake was chosen in every respect as the best. Children were used in the test as well as grown-ups to avoid any possibility of a developed taste in which knowledge might aid in the decision.

Food Value—Naturally this subject is one that has had considerable attention by critics who look at the proposition from a strictly scientific standpoint. Investigation on the subject convinces us that the real food value of an egg should be obtained from eating, either boiled, poached or in some similar manner. Little concern is felt about the food value in cooked and baked foods, although this should be thought of by the manufacturer of egg compounds.

The essential thing in cooking and baking is to obtain proper result. The food value of an honestly made egg product should be very high and together with the combination of food values in the prepared food would be such that, on analysis of the cooked food, there would scarcely be any difference.

The homemaker is, therefore, given an opportunity of making all the foods which require eggs in cooking and baking at a greatly reduced cost, thus permitting the eating of more eggs. Eggs should be eaten freely and plentifully and if the cooking and baking cost is reduced through the use of a dry egg compound there need be no hesitancy in eating eggs.

Regarding dry egg: Pure dry egg, dried while fresh, like dried apples, peaches and other fruits and vegetables, keep under ordinary conditions for a long time. In some respects dry egg is better than storage egg. The home maker need have no compunctions in using a good compound.

It would seem that if the home maker selects a compound in which egg is the basis and which does not use color to deceive, and does not make exorbitant claims, she is making a big saving in her food costs and at the same time is able to have muffins, meatloaf, gravies, pancakes, ginger bread, corn bread, cakes, cookies, pies, desserts and numerous other foods more frequently. She would also feel she could afford to serve eggs more freely.

It would seem unfair for food specialists to condemn all egg compounds just because corn starch, colored to deceive, was made and sold as egg substitutes. It seems about as fair to condemn brass because at one time or another it was used to plate a brick, sold as gold. Pure gold is not nearly so useful to mankind as fourteen or eighteen carat and it isn't nearly so costly.

It is to be regretted that State laws differ so widely and it is utterly impossible for the manufacturer to merchandise his goods by any standard. The public must pay added selling cost and would be materially benefited by standardized federal laws. It is pleasing to note that there is considerable agitation regarding this and manufacturers, food specialists and consumers would all be materialy benefited.

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Andrew Carnegie says: "Keep expenditures always below income: same something. The fundamental difference between the civilized man and the savage is thrift." Buy W. S. S.

## Earthen Jars as Egg Savings Banks

Filled with waterglass the old earthen jar from the cellar possesses magic akin to Aladdin's wonderful lamp. Eggs put in it now can be taken out next fall and winter when high prices return, and it is not unlikely they will double in price in that time, says advices received at University Farm from the United States Department of Agriculture. Farmers and poultry men, especially city dwellers who keep poultry are being urged by poultry specialists of the United States Department of Agriculture to preserve eggs in waterglass solution this spring and early summer when they are relatively cheap, for use during the fall and winter when they are relatively scarce and high in price.

Preserving eggs in waterglass, or silicate of sodium, has proved very satisfactory. The process is very simple and easy, the cost of material and container very moderate, the quality of the eggs is maintained, and they may be put down at any time when they are abundant or cheapest.

One part of waterglass to nine parts of water is a standard mixture. Boil the water and add the waterglass before it cools, stirring thoroughly. A popular amount is one quart of waterglass to nine quarts of water, making enough mixture for fifteen dozen eggs. Any container, excepting tin or iron may be used, but a five-gallon earthen jar is the favorite one. This will hold fifteen dozen eggs, or half a case, and when filled may be easily handled.

Only fresh, clean, hard-shelled eggs should be put down. Care must be taken that none are checked or cracked. Dirty eggs may be washed, but should be rolled in the thin white of an egg and dried before putting down.

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## Food Service for Foreign Women

Buffalo, N. Y., has a thrift kitchen which has been developed by the county home demonstration agent. It is in the neighborhood of numerous factories where many Italian women are employed, and hot dishes with recipes for making them are sold at cost to these women. Thrift kitchens make it possible for women in industry to feed their children suitable food cooked in the right way. Boards of health regard these kitchens with much favor, because they help solve the problem of how to aid the under-nourished child.

# Laws Should Protect Worthy Food Manufacturers

### By WM. G. DAVIES

EVERY corporation and firm doing business under the laws of the United States and the various state regulations has the same right to laws that will protect it in its legitimate business activities as has the individual.

The legislative and the judicial branches of our government have always been jealous of the innocent citizen's rights and the laws have been drawn and administered to protect him as far as possible from being adjudged a criminal until he is so proven. This is right and as it should be, as it is better that a few criminals escape punishment, than that one innocent man be wrongfully convicted.

In carrying out this principal wherever there semes to be danger of a law being misapplied, great care has been taken to exactly define each phrase and word so that the intention of applying it to violators who are deliberate law breakers cannot be questioned. The definitions of what constitutes a criminal act are specific and carefully worded in most cases.

But when we come to laws which apply to various kinds of corporations there seems to be a tendency in some cases to permit perfectly legitimate enterprises to be classified, at least as to the wording of the law, with illegitimate ones and these corporations are compelled too often to depend upon the broad mindedness of the courts to give them the standing which they should have without any litigation or question. This fact has forced many concerns into the courts to prove their innocence and legitimacy which was never seriously questioned by those who made the law or by those officials who knew most about the company's affairs.

This condition is particularly true of the manufacturers of food products, and, of course, there is a reason for it.

Food production and distribution has been going on for a great many years but the laws designed to regulate this industry and to protect the citizen from fraud in one of the necessary articles of his existence, are all of comparatively recent date, at least judged by the age of criminal laws applying to individuals. A careful study of these laws show that most of them, at least the earliest ones, were formulated only after certain classes of food or medicine manufacturers had carried their abuses of public confidence to a point where radical corrective and regulatory measure were made necessary. In framing the regulatory measures it was, in the early days, probably found necessary to make the provisions of the law so broad that some innocent manufacturers and distributors were placed in questionable positions.

But that day and that contingency has pretty well passed. While we still have some fake or questionable food trying to gather in the coin of a credulous public, it can be stated without fear of contradiction that most of the large food manufacturers who are now soliciting public favor have a legitimate product which at least has the right of presentation. You or I may not wish to use that particular product because we prefer the taste or the effect on our particular system of some other product, but this difference of opinion should not constitute a reason for a law unduly restraining the product which we do not wish to use.

What we do need are laws that will properly regulate the sale of all products so that the public will not be cheated either in the nature of the contents or in the price, but these regulations should be so thoroughly defined and so regular in their application in all parts of the country that the manufacturer will know just what rules he must conform to and may be able to market his product without fear of interference so long as he conforms to those rules.

In legislating against food articles that contain certain ingredients there seems to be a tendency to include the sheep with the goats and let the courts do the differentiating. This tendency has been shown in many food lines and seems to be the result of the unwillingness of the law makers to tackle the job of being exact in their definitions. In their eagerness to hold down a class of products which they believe the public has shown its desire to root out they sometimes include in their broad definitions some other product or products that are perfectly legitimate and that have long been regarded favorably by the people.

Such a case, in a very aggravated form presents itself in the pending national legislation which would seek to define the products which may not be sold under the new prohibition laws. Bills are now before our national legislature, two before the Senate known as Senate Bills number 611 and 555 and the other before the House of Representatives known as House Bill number 3458. They are practically identical bills and have the same purpose in view. They seek to define what shall constitute an alcoholic drink.

In the definition, however, the fact that certain classes of food products are necessarily made with alcohol as a large ingredient has failed to be taken into consideration, and if these bills become a law in their present form and are strictly enforced, flavoring extracts will be wiped out of existence.

In each of the bills the clause which permits specifically the manufacture and sale of flavoring extracts couples with this mention the clause, "providing that these are not potable or capable of being used as a beverage." Apparently the intention is to guard against the making of liquors under the guise of flavoring extracts but when you consider that flavoring extracts are used in soft drinks as well as in the culinary departments of the homes; and when you consider that some men with metallic insides can and probably a few drink flavoring extracts when they can get no liquor, this cause opens the door to unjust action against the extract manufacturers and it leaves them in the position of having to depend upon the broad-mindedness of the judiciary for their exemption from classification as liquor manufacturers.

Another clause in these bills calls for the appointment of a Prohibition Secretary in the Treasury Department who shall have the power to determine whether or not a liquid is potable or capable of being drunk as a beverage.

Here, too, the manufacturer is left in uncertainty. This is not as it should be. The manufacturer has a right to a law that shall state positively just what kind of a product he can make and clearly defining what the word "potable" means and how it is to be applied. A liquid is potable to one person and non-potable to another depending very much on the amount of poison or nauseating substances that the particular person can take into his system without being made ill.

The question of when a liquor was or was not intoxicating used to cause the courts much worry because some men could drink a great deal without showing the same effects as others showed on drinking a little, so the meaning of the word has been made clear. The contents of the liquid and not the effect on the person is the standard of measurement. The word potable and capable of being drank as a beverage should be defined exactly, so that there can be no doubt and no room for prejudiced or influenced officials to force a legitimate manufacturer into court.

Of course, there is no intention on the part of the leaders of the prohibition movement to prohibit the sale of legitimate flavoring extracts and they point to the fact that there has never been a court decision against the sale of such products under laws similarly worded in various sections of the country. But that fact does not free a legitimate enterprise from the necessity of always being prepared to go into the courts at great expense and some detriment to standing for the purpose of upholding its rights. In that very fact lies the danger and injustice of such a law.

There are too many records on our court dockets of legitimate concerns that had to fight cases through all the courts of the land before they knew where they stood and how their product should be labeled and sold. There are not so many cases where legitimate products, which were so recognized in the public mind and in the minds of many public officials were restricted by laws which were never meant to restrict them when originally drawn and passed, but there are enough of such cases to point out the danger.

As has been demonstrated over and over again, after a law has been passed a legitimate concern may be hailed into court to defend itself against an attack which is made on a technicality and the court has had to rule against that concern on the technicality without ever a question having been raised of the wholesomeness or honesty of the product or honesty of production.

A striking example of such a case is that of a company which has been compelled to refrain from offering its product for sale in the state of Ohio although the court in passing on the case said that no question of legitimacy or wholesomeness of the product had been raised and that there was no question of the honesty of its label or advertising. The product was made to suffer because a law which was passed before it had been thought of had been so worded as to permit anyone to attack the legality of its sale in that state.

Surely this product along with other food products had a right to be judged on its own merits. It seems as though there should have been some way in which this case could have been brought into court so that the judges could have been permitted to pass upon its wholesonmess or unwholesomeness or upon the honesty or dishonesty of its labeling. But there was so such way. The judges of the Supreme Court, both the majority and the three dissenters, stated very plainly that the quality of the product was not on trial, but that the right of the legislature of the state to make such a law was the only point to be passed upon, and as there was no reason for judging against the legislature's right of making a law, the product must suffer by the judgment.

If we could know just how the brains of the officials of the future would function and just what new phases of the food question were coming to the front, manufacturers would know how to act, but who can say that some official, five or ten years from now, will not go into court demanding that flavoring extracts be barred from the public markets because they violate the technical definition of intoxicating liquors?

If such a point were raised and pressed by a strong element, no matter if this element happened to represent a competitor business or a radical viewpoint which was not shared by all the people, the court would have to decide the case on the technicality of the alcoholic content and the fact that flavoring extracts had been drank in a few extreme cases and produced intoxication thereby proving them to be potable, and the real merits of the flavoring extract case would not receive a trial.

Even if the flavoring extract manufacturers should eventually win out in court, the fact that they would have to go to court to prove a point which is not questioned by any reasonable person, that is that they are not making a liquor for sale as an intoxicating beverage, is an injustice in itself. Why should they be compelled to spend money and effort in litigation any more than the average honest citizen should have to appear in court to prove that he is an honest citizen?

The exponents of prohibition say that they have caused the definition to be framed as it is so as to make it impossible for liquor dealers to manufacture and sell a product under the guise of a flavoring extract, but which in reality would be a liquor. They claim that if flavoring extracts should be specifically exempted that this would offer a premium to the unscrupulous to put up and sell intoxicating liquor as a flavoring extract and that then the burden of proof would be on the state to show that the liquid in question was not a flavoring extract.

Knowing the struggle which the prohibition forces have had to secure the passage of the laws which we now have on the books and the fight which they have always had to enforce those laws, one cannot help but have sympathy for their way of looking at this question. Nevertheless one cannot help but admit after giving the case some thought that in their efforts to protect society from certain evils they are imposing an evil upon an industry. This should not be necessary. Surely with the array of brilliant legal talent that this organization has at its command some form of phrasing could be discovered which would accomplish the results which the prohibitionists desire and at the same time protect the manufacture of a wholesome, and very much desired culinary ingredient.

But the whole question which this brings up is a bigger one than is represented by the flavoring extract people. It is a question that affects the entire food industry and, inasmuch as the food industry is a business in which the welfare of all the people is seriously concerned, it is a question that affects the welfare of the country.

It was stated at the outset that a corporation should have the benefit of protection from the law as well as regulation. This is particularly true of the food corporations or firms. The people of the whole civilized world are clamoring for food and more food. All the food that can be manufactured or produced is needed. Restrictions that tend to hold down production or embarass the producers is sure to be reflected in the food market by a greater scarcity and higher prices.

At the present time we have a very chaotic condition in our food legislation and many manufacturers are learning after a long and expensive battle through the courts that their products which may be generally hailed as good, wholesome and desirable, can be subjected to restrictions in certain states, because some official has the power under a state legislative act to force such restrictions while every other state in the Union permit them unrestricted markets.

They are finding out that labels approved by the U. S. Department of Agriculture and drawn on the advice of these officials are liable to be subjected to change in one or more of the states because of a prejudice or political or competitive chicanery.

This is unjust and unfair to the manufacturer because it breaks down his attempts to secure economy of manufacture and distribution by standardization. In some cases he must have different labels and marking for different states, and his distribution methods must be different. In other cases his product is subjected to some form of tax in one state and goes tax free in another.

The only remedy for this latter evil is to place all products which are marketed interstate under Federal legislation which will amply protect the public and at the same time definitely fix the conditions which the manufacturer will have to meet in the manufacture and sale of his product so that he can be assured that once having conformed to the required conditions he may pursue his with the same assurance of freedom from interference as you and I as individuals have.

## Sugar and Its Value as Food

DESPITE the fact that sugar is one of the principal articles of food consumed by the human family, comparatively few people have any conception of the part it plays in furnishing the human body with energy, says I. A. Brock, in Facts About Sugar; nor do they appreciate the fact that, on the basis of the amount of energy furnished per pound, it is one of the least expensive foods on the market.

A careful study of dietaries reveals the fact that sugar constitutes 5.4 per cent of the average American diet and furnishes 17.5 per cent of the energy this diet contains.

The importance of energy-producing foods becomes evident when we consider that with every motion of the body, every exercise of feeling and every thought, energy is expended and must be resupplied to the body by food.

The foods that furnish energy to the body are sometimes termed "fuel foods," for the reason that they have the same relation to the body that fuel has to the locomotive. The value of these foods, therefore, is based upon the latent, or potential, energy they contain.

In dealing with the fuel value of foods, the unit of heat known as a calorie is used. A calorie is that unit of heat which would rise the temperature of one pound of water 4° F. Instead of this unit of heat, a unit of mechanical energy may be used, for example, the foot-ton, which represents the work required to raise one ton one foot. On this basis one calorie is equal to nearly 1.54 foot-tons.

A study of dietary standards shows that it has been found that a man at hard work requires sufficient food to furnish his body with 3,270 calories daily. A man at moderate work requires 2,965 calories. A man at sedentary work or a woman at moderately active work, requires 2,700 calories, while a woman at light or moderate muscular work, or a man without muscular exercise, requires 2,450 calories.

While it is true that the protein compounds in the various articles of food may be utilized to a limited degree to furnish energy, the fact remains that the chief office of the protein compounds is to rebuild tissue. Hence the large portion of the energy required by the human body must be derived from fats and carbohydrates. For example, the average American workingman requires approximately 93 gms. of protein, 110 gms. of fat, and 334 gms. of carbohydrates, principally starch and sugar. Such a diet, it has been found, would furnish a total of 2,810 calories to the body.

Thus it is observed that sugar is not merely an article of food that is pleasing to the sense of taste, but that it is one of the principal mediums through which heat and muscular power are supplied to the body.

Second in importance to the amount of energy supplied by the various foods is the matter of digestibility. It has been found that in the total food of an ordinary mixed diet, approximately 92 per cent of the protein, 95 per cent of the fats and 97 per cent of the carbohydrates are retained in the body and utilized. In the case of sugar it has been found that it is 98 per cent digestible. In other words, sugar contains practically no refuse or waste material.

The fact which is of most vital interest, however, to the consuming public is that sugar is one of the least expensive of the energy furnishing foods. Taking the present prices of various commodities and their fuel value as a basis, it will be found that for every 1,000 calories furnished the body in the form of round steak the consumer must pay 43 cents. One thousand calories derived from roast loin of pork cost 32 cents. The same number of calories derived from butter would cost 15 cents; from codfish, $1.38; from potatoes, 17 cents, and from fat salt pork, 7 cents, while 1,000 calories derived from sugar at nine cents per pound would only cost 5 cents. In other words, 10 cents' worth of sugar would furnish the body with 2,000 calories, while the same amount expended for round steak would only furnish 208 calories. Ten cents' worth of roast loin of pork would furnish 312 calories; of codfish, 71 calories; of fat salt pork, 1,428 calories; of butter, 666 calories; of potatoes, 588 calories.

## 1918 Exports by Countries

A government bulletin showing our export trade during the fiscal years 1917 and 1918 by countries is now ready. Our other statistical publications show export by articles, with countries to which each article is shipped; this one takes up each country and shows in detail the articles shipped to it. It is thus possible to turn to Argentina, for instance, and study the character of our exports to that Republic.

Copies can be obtained by sending to the Superintendent of Documents, Washington, D. C., or to any district office of the Bureau of Foreign and Domestic Commerce.

## Heredity

"Do you believe in heredity?"

"Yes," said the school teacher. "There's a little boy in my class who has to return home every day for his books, pencils and pens. His father's a plumber."—Buffalo Express.

Benjamin Franklin said: "Learning is to the studious and riches to the careful." Wise buying and intelligent saving will leave you money to invest in Thrift Stamps and W. S. S.

We demand coffee and tea of uniform grade. We insist that baker's bread be of the same high quality day after day. Why should we not require the milk supply to be as carefully standardized as other foods?

# Oleomargarine and Butter—Partners

## The Increase In Oleomargarine In No Way Lessens the Demand for Butter

A HUNDRED million dollar industry! That is what oleomargarine manufacturing has become in this country.

The production of oleomargarine is almost three times as great now as it was only four years ago, amounting in 1918 to 377,000,000 pounds.

And yet this meant less than three pounds per person, whereas in Denmark 46 pounds is consumed per person each year. The Norwegians average 33 pounds, the Hollanders 20 pounds, and even the average Englishman eats almost three times as much as we do. So we see that the industry—large as it is—is only in its infancy in America.

But the dairy industry has viewed this rapid growth with alarm, and has feared that oleomargarine will prove to be a serious competitor of butter. In fact, some dairymen have gone so far as to claim that the packers are destroying the dairy industry because of this competition.

Let us examine the facts. Unfortunately there is an amazing lack of dependable statistics relating to the butter industry, but after combing all sources of information these enlightening facts have been determined:

1. With the exception of one or two brief periods, the number of dairy cows has been increased steadily and has kept pace with the increase in population, despite the temptation, offered by high meat prices, to sell these cows for meat purposes.
2. Similarly, the production of milk has increased steadily each year.

From these facts it is safe to conclude that the dairy industry continues to offer satisfactory returns and is in no danger of being forced to the wall.

When we attempt to determine the history and trend of butter manufacturing, we face practically a blank wall. Comparative figures simply are not to be had. But such evidence as we can find does not indicate any collapse in the creamery business.

For example: Receipts of creamery butter at the seven leading distributing points in the United States more than doubled in the twenty-five year period from 1891 to 1916. During this same period the United States population increased only 35 per cent. Thus the butter receipts increased three times as fast as population.

In 1917, however, receipts in these markets declined 10 per cent over the preceding year. This decline was also reflected in the butter production figures for the state of Iowa, a representative dairy state, which indicate a decrease of 3½ per cent in 1917, and 11½ per cent in 1918.

Confronted with these figures, showing the rapid increase of oleomargarine production and the apparent decline in butter production, certain dairymen naturally jump to the conclusion that one is the result of the other. Yet, let us turn to the report of the Iowa Dairy and Food Commissioner. He attributes the decline in Iowa butter production to the scarcity of help on farms and in creameries; the tendency of farmers to sell rather than feed crops, due to the high prices at which all farm products have been selling; the tendency among farmers to specialize on crops upon which the Government guaranteed prices; and finally to the shortage of pastures caused by the dry season.

These conditions are all temporary and suggest an early return to normal production. No mention is made of oleomargarine competition.

However, we believe that there is another fundamental reason for this decline in the output of creamery butter, which is not merely temporary, and which will become continually more important. This is the rapid growth of other industries using milk as raw material, which under some conditions offer a more profitable market to the farmer for his milk and cream than that afforded by the creameries. Thus, less butter is produced because the dairymen have found more profitable outlets for their milk and cream. The following table shows where the milk produced in this country went in 1918, as estimated by the Government and checked by some of the foremost dairy authorities.

**Consumed as Fresh Milk**

| Per Cent of Total Milk | Pounds of Milk | |
|---|---|---|
| 44.25 | 38,899,875,000 | By our total population (city and country). |
| 4.3 | 3,748,000,000 | By 17,848,000 dairy calves. |
| 2.5 | 2,197,637,800 | Through losses on farms and in factories. |

**Consumed as Milk Products**

| Per Cent of Total Milk | | Milk Products | Total Production (Pounds) | Amount of Milk Used in Making Pound |
|---|---|---|---|---|
| 19.2 | 16,800,000,000 | Creamery Butter ........ | 800,000,000 | 21 pounds |
| 16.9 | 14,910,000,000 | Dairy Butter ........... | 710,000,000 | 21 pounds |
| 4.5 | 4,000,000,000 | Cheese .................. | 400,000,000 | 10 pounds |
| 4.5 | 4,000,000,000 | Condensed Milk ......... | 1,600,000,000 | 2½ pounds |
| 3.8 | 3,300,000,000 | Ice Cream (gallons)...... | 220,000,000 | 6 pounds |
| | | | To gal. | (10 per cent fat) |
| .04 | 40,000,000 | Powdered Milk .......... | 5,000,000 | 8 pounds |
| .006 | 6,000,000 | Sterilized Milk (canned).. | 6,000,000 | 1 pound |
| .004 | 4,000,000 | Malted Milk ........... | 16,000,000 | ¼ pound |
| 100. | 87,905,512,800—Total Milk Production. | | | |

The estimated total production of milk in the United States for 1918 was $87,905,512,800 pounds. This was consumed as follows: See table above.

Milk products are constantly increasing in importance, and indications are that the rate of growth will be even more rapid in the future.

Take ice cream, for example. It is estimated that while ice cream production expanded from $50,000,000 to 200,000,000 gallons in ten years, it jumped 30 per cent in just the past year. With prohibition staring us in the face, and the ever-increasing popularity of the soda fountain, it looks as though boom times were ahead for the ice cream business.

Some idea of the growth of the condensed milk business may be gained from a study of the export figures for the past five years. With only sixteen million pounds exported in 1914, the year 1918 showed a total of 551 millions, or an increase of more than 34 times as much as in 1914! Of course the greater portion of this represented war demands, but it accounted for four billion pounds of fresh milk.

To summarize: Despite the steadily increasing production of milk there appears to have been a temporary falling off in butter production in the past two years. This is not due to the competition of oleomargarine, but to temporary conditions brought about by the war, and also to the diversion of milk to more profitable outlets.

Why should dairymen fight oleomargarine? The high price of butter is proof that the demand for butter continues strong. Yet many consumers cannot afford to purchase butter at present prices. It is not a case with them of oleomargarine or butter. It is rather a case of oleomargarine or nothing. If the difference between the prices of these commodities would lessen, most people would pay the slightly higher price for butter; but they cannot afford to pay from 50 to 75 per cent more merely to satisfy their aesthetic taste.

Denmark forms a concrete example of how oleomargarine and butter can supplement one another, with mutual advantage. Denmark, one of the greatest butter producing countries in the world, shows the greatest per capita consumption of oleomargarine.

As you read this article bear these facts in mind:

Oleomargarine, as made today, is a sweet, pure, clean food product, composed of oleo oil, neutral vegetable oils, butter, milk, and salt. The oleo oil is pressed from choice fats of the beef, which have been washed, hashed, and cooked. Neutral is made from the leaf fat of the pig by hashing and cooking. The vegetable oils are choice, wholesome oils, refined to a salad oil quality. The butter used is the best that the market affords. The milk and cream are purchased in the finest producing sections and are pasteurized before being used.

Oleomargarine is absolutely pure and clean, manufactured as it is under strict supervision and inspection.

Practically all real butter is artificially colored, and without penalty, whereas there is a tax of ten cents a pound on oleomargarine if artifically colored.

Oleomargarine is as nutritious and easily assimilated as butter,—as proved conclusively from exhaustive tests made by the British government, and as testified to by many noted scientists.

Oleomargarine contains the much-discussed and little understood "growth elements," as proved by the experiments and investigations of Messrs. Drummond and Halliburton.

In fact, oleomargarine is a pure, clean, healthful product, successful because of its real merits, and because it meets a real economic need. The manufacturers of oleomargarine do not seek to displace any other product. All that they ask is fair play and free competition. There is room and to spare for both oleomargarine and butter.

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# The Story of Caviar

Caviar has been known for hundreds of years as a table delicacy. Shakespeare refers to it in "Hamlet." The best caviar comes from Russia. It is made from the "roe" or eggs of the sturgeon. On account of the war numerous imitations have appeared on the market. There is what is called "red caviar," which is made from any kind of roe. In Norway the roes of the codfish is made into "Norwegian Caviar." In this country fisheries along the great lakes and the Mississippi river make caviar of catfish, pike, carp and in fact any kind of eatable fish that is caught.

During the war the best Russian caviar sold for $30 per pound wholesale and hard to get at that. The great Russian rivers are centers of large sturgeon fisheries. The sturgeon runs in size from a foot to thirty feet in length. They will weigh up to a ton. The most valuable of the sturgeon is of course the roe. The best caviar comes from the small sturgeon, called the "sterlet." The large, white sturgeon produces the next best caviar and is known as the "Beluga." The roe from the sterlet is called "Ikra caviar," and is the very best quality obtained. It is small in size and is only obtained in winter as it is never put up in brine and always sold fresh. The largest eggs come from the large white sturgeon. This is the second best in quality and is generally listed on the bill of fare as "Genuine Beluga Caviar." We also sometimes see on a bill of fare: "Genuine Astrakhan Caviar." This is a misnomer, as Astrakhan is the name of a seaport in Russia where most of the Russian caviar is shipped from. We might as well list prunes on the bill of fare as San Francisco prunes because they were bought in San Francisco. "Ikra" caviar is made by running the roe through a hair sieve to free it from fat and skin. It is salted slightly and forms a liquid mass. It is hard to ship and we get little of it in this country. Outside of Beluga caviar, we get in this country, pressed caviar or "Red Caviar," as mentioned above. This is pressed in brine, shipped to this country in kegs lined with canvas. Then we get the tinned variety, put up in one-eighth, one-quarter and half-pound tins, which may be obtained at any grocery store. This is liable to be anything as it is permissable to sell any kind of fish roe as "red caviar."

Astrakhan, Russia, is the great market of the world for caviar. The chief contents of caviar are albumen and fat. It is easily digested and considered healthy and nourishing. To a true epicure additional ingredients spoil the flavor of good caviar. The cheaper grades may be improved in flavor by the addition of butter, paprika, lemon juice and worked into a smooth paste. Prepared this way it is served on a fresh-made piece of toast as a canape. Some caterers serve it on a fresh-made pancake. Some even go so far as to make the pancake in a chafing dish before the guest. Generally one dollar or one dollar and fifty cents is the charge per person for this service. It is considered passe and is not done now to any great extent. The best grade of Beluga caviar is black in color, large in size and should retail for one dollar to one dollar and fifty cents per portion.

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## Champion Holstein Cow Sold in East for $26,000

The champion Holstein cow Rollo Mercena de Kol was sold June 6th for $26,000. The cow is 6 years old and weighs 1,300 pounds. Her record is 51.93 pounds of butter and 1,138 pounds of milk in seven days and 201.17 pounds of butter and 2,930.60 pounds of milk in thirty days.

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Put quarters which might be spent foolishly into War Savings Stamps; back up yourself with cash and back up your Government in cleaning up the war.

What the Public Should Know About the Packing Industry

THE business of collecting, preparing and distributing foods so relates to the daily life of all that it has close, personal interest for everybody. Sensation seekers and unscrupulous politicians have long realized this and capitalized on it. An attack on the packers could always be relied upon to either draw notice to its instigator or divert too close investigation of some other question.

Possibly we, ourselves, are partially to blame for the lack of understanding which exists in regard to our business. In the past, knowing that attacks upon us have been based on tissues of half-truths, adroitly handled innuendo and misinformation, we may have forgotten that the public were not in full possession of the true facts.

Confident that fair-minded people will respond to complete knowledge, we seek better understanding with them. Through newspapers, booklets, moving pictures of our processes and other similar methods, we are putting our case squarely up to all parties who are interested—to producer, merchant consumer and labor—that each may realize how our obligations to him must combine with our responsibilities to the others.

When all is said, however, the size of any business dealing competitively in staples must remain the best evidence of its economic soundness. If our methods were not sound, Armour and Company could not have attained size in proportion to national needs.

Bearing this thought in mind, you will readily appreciate that your own self-interest and your right to fullest value for your money, both urge that you always ask your dealer for Armour Products.

ARMOUR AND COMPANY

## Chief of Bureau of Markets Resigns

Charles J. Brand, chief of the Bureau of Markets, U. S. Department of Agriculture, since its inception in 1913, has resigned, to take effect at the close of business on June 30, 1919. He will become vice-president and general manager of a commercial concern, with headquarters at Pittsburgh, Pa. George Livington, a member of the bureau staff, will be designated to act as chief of the bureau until Mr. Brand's successor is appointed.

Mr. Brand has been with the Department of Agriculture since 1903 and had charge of the forage crop and paper plant investigations and the cotton handling and marketing work of the Bureau of Plant Industry before the creation, in 1913, of the Office of Markets, which was afterwards made a bureau. Under his direction, the Bureau of Markets has grown from a dozen employees to a staff of about two thousand, located in Washington and in other cities and at country shipping points. It has built up, under Mr. Brand's direction, a nation-wide market news service for producers and distributors of farm products, has carried on many investigations for improving marketing practices and methods, and has performed regulatory work in connection with the application of Federal grain grades, cotton standards, stock yards licensing, cotton futures, and food-products inspection. Mr. Brand was chairman of the Committee on Cotton Distribution of the War Industries Board, and was liquidating officer of the Wool Division of that board. He also directed the distribution of about 200,000 tons of nitrate of soda to farmers for use as fertilizer.

## Something New Again

It isn't novel at all to find Wisconsin pea canners enterprising, but their enterprise in sending a special representative to London to undertake the task of building up a demand for Wisconsin canned peas in Great Britain is something quite beyond the ordinary.

It is the first time in the history of the American canning industry that any body of canners has undertaken to deal directly with the foreign trade and foreign consumer. The pea canners of Wisconsin, therefore, are pioneering, and the pioneer is always entitled to admiration.

There are no better peas in the world than those produced and packed in Wisconsin. It will be the task of the representative of the canners to convince the British people that this is true. If they have a preference for peas packed in France and tinted a brighter green than Nature provides, it will be the job of the ambassadar of the pea packers to show them their mistake.

The results of this special effort to open the British market to Wisconsin canned peas will be watched with interest by the whole canning industry in this country. In the meantime, all will doff their caps in tribute to the spirit of enterprise which led the Wisconsin packers to seek to widen the outlet for their product and to back their judgment with their money.—The Canner.

## Coals of Fire

A Scotch woman who lived unhappily with her husband was advised by her minister to try the effects of kindness, and, in the words of Scripture, "to heap coals of fire upon his head." "I have tried boiling water already," she immediately replied, "and that has dune naa gude."

# What the War Did for Jam Manufacturers

*By Dr. A. W. Bitting*

THE war has done for jam about what was predicted at the beginning, practically created a new line in the fruit industry. The use of jams and marmalades as staple foods were common in some of the European countries, but here they have been looked upon as delicacies.

For bread the national spread has been butter, but under war conditions it was not obtainable nor could the supply be greatly increased, no matter what the price might be. Jam came in as a real substitute, and to the boys at the front it was more than a substitute, for it supplied not only the equivalent in food value in a different form, but, in addition gave a flavor that was greatly appreciated. The issue of jam broke the monotony or sameness of boiled meats and stews in camp and served as an appetizer with the hard bread and canned meat in the front line trenches. It also relieved to some extent the shortage in sweets.

The best evidence of the popularity of jam was to be found in the fact that there was insufficient supply available. The War Department purchased all that was offered of good or fair quality and even reached out to Australia for a small lot.

The great demand for jam is in part temporary, due to the concentration of large bodies of men, to a lack of butter, and to a somewhat enforced sameness in a routine diet, but there can be little doubt but that these conditions will also act as the great stimulant for the development of this branch of the industry. The taste for jam has been acquired, and while many of the boys will drop back into their pre-war diet, there are thousands of others who have learned the satisfaction of better eating, who will insist upon better preparation and greater variety in their foods and in this way will teach others to use jam. Probably more than sixty per cent of the drafted men have been made familiar with better prepared food while in the army than they ever knew before and they are going to be quiet but forceful exponents of good food in their own homes.

It is from these that the manufacturers of good jam are going to feel an impetus to their business.

### Our Quality Not the Best

Jam making is at a low ebb in this country, as far as quality is concerned. Probably eighty per cent of that offered upon the market can not be graded above fair quality. This is easily accounted for, since most of the manufacturers follow rule of thumb methods. If Mrs. Eve had ordained in her time that jam should be composed of equal volumes of fruit and sugar, or equal parts by weight of fruit and sugar and that it should be cooked until it became a thick mass, it is reasonable to suppose that some of her descendants would obediently follow the injunction to this day. The fact that some fruits are sweet and need little sugar, that others are strongly acid and need a large quantity to give them a proper flavor; that some have a firm body and need little cooking, others are so soft as to need considerable concentration to give them proper consistency in the finished product, and that hermetically sealed containers are used instead of open earthenware crocks seems to make no difference. Possibly the direct and implied interpretations under the pure food laws may also help in maintaining the old customs, but whatever it may be, the result is the same, a large amount of a low-grade mixture which does not fill a real want.

### What Jam Should Be Composed Of

A jam should be composed of fruit and sufficient sugar to bring out the flavor, and be cooked in small batches with such rapidity that it will have a good "set up" or body. A jam should be composed of whole fruit or pieces suspended in their own pulp or jelly. Some of the jams offered are sliced or coarsely cut fruits in a heavy sugar syrup and differ from a quick preserve only in the size and irregularity of the pieces used. In most cases these so-called jams are excessively sweet and the fruit flavor is masked until it is scarcely discernible. The other extreme is that in which the fruit is run through a cyclone and the product is like a butter. The variations in consistency due to cooking are equally wide, from that which breaks apart like a jelly to that which is so tenacious that it resembles a poor quality of chewing candy. The jelly-like consistency, so much desired, will vary with the fruit used, but the gumdrop or rubber effect is due to ignorance in manufacture. Good jam is not made in large batches nor by slow cooking; the maximum quantity for one batch should probably not exceed fifty pounds nor the time extend beyond thirty minutes, and usually much shorter.

### Kind of Fruit to Use

The highest grade of jam is made from fresh stock, taking part which is fully matured so as to develop all the bouquet and flavor of the fruit, and a part slightly underripe, to give the "set up," or body.

Next to this comes canned stock, provided it is of high quality, but in no case can an equal yield be obtained nor equal character in the body. The same principle applies as in canning; that is, having the factory operation conducted with the least delay after the product has reached the proper state of maturity.

Jam making does afford an opportunity for utilizing good, sound fruit which may be irregular in shape, too small for handling in the usual manner, or be off-color, provided it has good flavor and the right consistency. It is in no sense a place for dumping waste stock, as the residue from the grape or apple press, or for peels and cores from peeling machines or other by-products from fruit handling. These by-products may have good food value, may be spiced and made quite palatable, but need such a distinctive name that they can not be classified in company with the product made from the whole, sound fruit and sugar. Pectin and the substitutes for sugar have not been found to improve the quality in making good jam, and it is doubtful whether any manufacturer has gained more than a temporary advantage from their use. The success of the jam

(Continued on page 37)

# Few Gifts of Nature Have Proved More Useful to Mankind Than Corn— King of American Cereals

**CORN STARCH**—edible, laundry, or lump, has grown to be a household necessity.

**CORN OIL**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. **Corn Oil** has made a distinct place in the home.

**CORN SUGAR**—has its place with the ice-cream manufacturer, the physician and the baker.

**CORN SYRUP**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

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Huron Milling Company, Harbor Beach, Mich.
Keever Starch Company, Columbus, Ohio
Piel Bros. Starch Co., Indianapolis, Ind.
A. E. Staley Mfg. Company, Decatur, Ill.
Union Starch & Refining Co., Edinburg, Ind.

# How Much Will Prices Fall?

## A Symposium of Statements by Some of America's Leading Men

### Statement by J. Ogden Armour

THE greatest danger to our economic structure today arises from the failure of many to recognize a *new and higher level of prices, based on permanently increased cost of labor, and high taxation.*

Those who postpone building or buying in the hope of materially lower prices, are speculating in the future misfortune of the Nation. For falling prices, when reaching the point where profit is eliminated, mean panic, depression, unemployment, and other troubles.

In the final analysis 75 per cent or more of the cost of most commodities consists of labor, and reductions in the market price of commodities are, therefore, inevitably reflected in the compensation of labor.

Nothing in the labor situation warrants anyone in expecting materially lower cost of commodities in general, and building in particular. Wages will not be less for several fundamental reasons, viz.:

1. The practical stoppage of immigration since 1914, depriving America of the several million workers who would normally have come to our shores.
2. The retention by the nation's military and naval establishments of nearly 2,000,000 workers, which may continue for an indefinite period.
3. The creation of new industries, such as shipbuilding, and manufacture of chemicals and dyes, requiring hundreds of thousands of workers.
4. The urgent demand for building and construction of every class, due to their having been forcibly held back for several years.
5. The shortage of the world's food supply.
6. The proportionately higher levels of commodity prices existing practically all over Europe.

On the one hand, then, we are facing a serious shortage of labor as soon as we approach normal industrial activity, and on the other hand there is confronting us a tremendous, unsatified demand for many necessities which it was difficult or impossible to obtain during the war.

Normally under such conditions we could have expected a flood of low-priced goods from the old world, while now we find that prices in Europe have risen proportionately much higher than in America, and the demand for commodities and labor, to make up for the wastage of war, is even more keenly felt there than here.

The manufacturer who now quotes the lowest possible price consistent with the high cost of labor, and guarantees this to be so, doing his buying freely on the same basis, ranks as our highest type of patriotic citizen. A new level of prices has been established, from which there can be no material recession until inventive genius succeeds in correspondingly increasing labor's productive capacity by mechanical means.

### Statement by James B. Forgan, First National Bank, Chicago

While it is my belief that the general trend of prices during the next decade may be downward, I do not anticipate any sudden or violent tumble in the near future beyond the elimination of war prices made necessary to stimulate production in high-cost plants. We can not "eat our cake and have it." We can not immediately have low-priced products with high-cost labor.

At no time was honest labor more indispensable than during the war, and during that period the average weekly wage of all workers was greatly advanced.

Out of the war has come a strong realization of the value of labor to civilization, and we must accustom ourselves to the evident fact that a permanently higher scale of wages or compensation has been established for the world's worker, both skilled and unskilled.

In all lines of industry, to make a fair profit, selling prices must be in proportion to the cost of production, including the enhanced cost of labor. This fact should be recognized in buying as well as in selling.

There exists in the world today, and there will exist for some time to come, a tremendous latent demand for goods and service and a relative shortage of workers caused by the war. The high cost of living has not yet begun to recede, and it would be an erroneous policy at present to attempt to cut prices at the expense of labor.

### Statement by Maj. Gen. George W. Goethals

The immediate problem that confronts us is the resumption of business, including particularly building construction, manufacturing and mining.

Business is being retarded because we are hoping for, or fearing, lower prices. Whether these fears, or hopes, are ever going to be realized, no one can say, but above the maze of conflicting arguments that are being applied to the situation, one fact stands out preeminently:

*We can return neither to prewar conditions nor prewar prices.*

Every thoughtful employer of labor realizes that the wage earner is entitled to proportionately more of the comforts and conveniences of life than fell to his share before the war. Every thoughtful buyer should realize that the price he pays for goods must be in proportion to the increased cost of labor. Also that labor, in the broadest sense, constitutes over 75 per cent of the cost of most products of farms, forest, mine, factory, and laboratory.

The manufacturer, employer, or individual who is selling his own labor, brains, or product at a high though reasonable price should not expect to buy cheaply from others. Let us be careful, in our cry for lower prices, not to forget that permanent improvement of living conditions is effected only by increased efficiency of the forces of production. And experience shows such increase of efficiency is at best a slow process, a process of years and perhaps decades.

### Statement by Jacob H. Schiff, of Kuhn, Loeb & Co.

In the period from May, 1918, to October, 1918, commodity prices in the United States had advanced about 107 per cent above the 1913 level; in Canada 115 per cent, in Great Britain 133 per cent, and in France 235 per cent. From October,

Dehydrated
Vegetables

Parties interested in their
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such as

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INSTITUTIONS

and other
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are requested to communicate
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INCORPORATED
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1918, until March this year, in spite of the most violent cry for lower prices, even by those who are undoubted beneficiaries of high prices, the decline, according to Dun's index figures, averaged only 6.9 per cent. During April, in spite of the agreement to lower steel prices, other commodities rose to such an extent that the average price level on April 1 was only 5.7 per cent below the high point for October 1 last year.

The reasons for this tenacious grip which high prices apparently have taken on the world are obviously to be found in the immutable law of supply and demand. The cost of labor is the most important factor in the price of commodities, as it makes up 75 per cent or more of their price. It starts with the cost of food and raw materials, which is largely represented by labor, goes on to the manufacture of semi-finished and finished products, which again is labor heaped upon labor, and is frequently punctuated between or after these various stages or processes with transportation and distribution, which, when analyzed, turn out to consist of a high percentage of labor in its broadest sense.

The wastage of war, both in men and materials, again is largely responsible for shortage of labor, especially past and prospective. For four years the orderly production and maintenance of peace-time activity has been most violently interrupted throughout the civilized world, causing on the one hand a heavy depreciation of property and on the other hand an appalling destruction of all those things which are vital to human happiness, life, and activity. The reconstruction is going to tax our efforts perhaps even harder than did the war, the latent demand for labor and commodities being tremendous.

There is cause for rejoicing in these conditions, for intense activity, even though accompanied by high prices, is far to be preferred to the blight of inactivity, stagnation, idleness, and suffering attendant upon unsound, unbalanced production and rapidly falling prices. After all, it is not a question so much of what price each of us has to pay for what we want, but as to what relation this price bears to our own income. Those millions of men and women whose incomes have grown apace with or ahead of the general price advance have abundant cause for satisfaction. Yet how often do we not hear these same people unwittingly complain of high prices, their attitude being that high prices is a privilege that belongs to themselves only, in the selling of their own labor or wares, but has no place in their scheme of buying.

### Statement by Theodore N. Vail, of American Telegraph & Telephone Company

During the Civil War prices rose relatively more than during the recent war. The prices unquestionably were inflated, being based on the greenback currency. Even so, however, the drop in the prices of 92 commodities in the decade from 1864 to 1874 *was at the rate of less than 6 per cent per year;* in building materials it averaged less than 4 per cent per year over the same period.

The principal cause of the gradual return to prewar price levels has been ascribed to the rapid transformation of manufacturing, agriculture, mining, transportation, and business in general, from hand methods to machine methods, from small-scale to large-scale production. Opportunities do not exist at the present day in any measure comparable with those of the period following the Civil War. Price declines so far, since the cessation of hostilities, bear this out, having been trifling—only 5 or 6 per cent up to April 1,

**Where Go Americans There Goes Mapleine**

**FROM PERSIA** * * * * *

"Maple Syrup is one of the luxuries I never expected to indulge in here in Persia, for missionaries' salaries do not warrant such expensive articles. But Mapleine quite takes the place of Maple Syrup and is not too expensive for us to use."

**FROM INDIA** * * * * * *

"Please send as much of your renowned Mapleine as this check will pay for."

**FROM CHINA** * * * * * *

"Several years ago in Kentucky we used Mapleine, which gave a perfect syrup. I enclose stamps to cover." (*He is a doctor in Forman Memorial Hospital ordering Mapleine.*)

—and so the inquiries and orders for Mapleine come from South Africa, Hawaii, Central America, South America, Cuba, England, France, Holland—wherever Americans venture in pursuit of philanthropy, business or pleasure.

The old love of the great American flavor is retained, and by reason of its splendid syrup-making and flavoring qualities they look for true enjoyment and satisfaction to

**MAPLEINE**

***Contains no maple sugar, syrup nor sap, but produces a taste similar to maple.***
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1919, as compared with over 25 per cent for the corresponding period after the Civil War.

Abstract consideration of these facts does not support any expectation of sudden and radical declines in present prices. As applied to big building, it would appear that any structure should prove commendable which is calculated to show a sufficient profit to offset an expected decline averaging, say, from 2 to 4 per cent per year for the next one or two decades.

Another factor which should be considered as favorable to big construction is the present tremendous latent demand for buildings, commodities, labor, and raw materials, which is expected to bring on a period of intense activity and national prosperity. It is also well to consider that, excepting steel, the rise in the cost of building materials has been relatively small as compared with other commodities. The price of lumber in particular may easily go higher, and in view of the decreasing lumber supply may never get back to the low levels of 1913-14.

### Statement by W. L. Douglas, of Brockton, Mass.

If you will call to mind, the per capita in the United States in 1914, in round numbers, was about $34. Recently I have noticed that the per capita is about $57, which is an increase of a little over 57 per cent. While the per capita remains at this high level the cost of commodities and labor will remain about the same. I am of the opinion that prices will be governed to a great extent as the per capita rises or falls.

### Statement by E. C. Simmons, of the Simmons Hardware Co.

I share the belief that we may look for a steadily and gradually declining market, rather than one of sudden and radical slumps. I am on record to this effect and have repeatedly expressed these views for several months.

I quite agree as to the immutable nature of the law of supply and demand, and that it must of necessity regulate what we are to get in exchange—either merchandise or services—for other things. As there seems to have been considerable confusion and looseness of thought on this subject of late, allow me to commend the clear-headedness of the attitude of the Secretary of Labor with reference to this matter.

### Statement by Coleman Du Pont

The thing that is going to make labor and material go down, with a few exceptions or little local varia-

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tions, is the law of supply and demand. So long as there is a demand for an article its price will be high. The greater the demand the higher the price, and if the cost of this article is mostly labor, the price of labor will continue high on that article, and so on down the list. Local weather conditions may affect local crops in certain districts, and this will make that article high at least in that district, because the demand for it will be great by reason of the low production; and so long as materials, including foodstuffs, are high, labor can not go down much, although it is likely that labor will be lowered in price ahead of the lowering in price of commodities.

We are going through a transition period, which has followed and will follow every economic disturbance.

Will wages be higher when things settle down than before? Yes, I think they will, because wages have continued to advance in this country year after year, but the cost of living and the desire for luxuries, too, have advanced so that relatively the condition is the same.

### Statement by Darwin P. Kingsley, President New York Life Insurance Co., New York

We have undoubtedly reached a new price level.

For some years food will be higher. Europe has been so stripped of every sort of food that it will take more than the harvests of 1919 to restore an equilibrium.

Food will remain high because wages will not go back to the prewar level. Wages will fall at some points—where production was overforced during the war; but unless our whole industrial and financial fabric falls into chaos—and nothing like that seems possible now—the postbellum readjustments mean continued high wages and of course a higher cost for everything into which wages enters.

How far discoveries in science, inventions, improved methods, etc., may go toward overcoming this increased cost through increased efficiency and increased production is a question. These will be a factor, possibly a surprising factor, because the rewards will be large, and few things so quicken invention and efficiency as the incentive of large returns.

Carry the message to the bolsheviks.

### Statement by A. Barton Hepburn, of the Chase National Bank, New York

Seventy-five to eighty per cent of the cost of all products represents labor; and as long as the minimum price of wheat is fixed by the Government at $2.25 a bushel and other necessities of the wage earners are approximately as high in proportion, there is every reason why labor should contend against reduction. With a recession in the cost of living there should be a corresponding reduction in the cost of labor. The employers of labor can not go on paying present wages, nor, indeed.

SOMETHING NEW

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Will dissolve more readily than
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Every Kind of
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FAR FAMED
BREAD and CAKES
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

WARD BAKING COMPANY
New York Brooklyn Boston Pittsburgh Providence Chicago Cleveland Baltimore

*"I'se in town, Honey!"*

What breakfast is so pleasing, so satisfying as Aunt Jemima Pancakes, smothered in syrup and butter! And no breakfast is simpler to prepare. Just add water to Aunt Jemima Pancake Flour and the fragrant cakes are ready as soon as the coffee is.

AUNT JEMIMA
PANCAKE FLOUR

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any wages, unless their business continues, and it has seemed to me that the closing of certain industries would throw labor out of employment. In seeking new employment they would accept the reduction in accordance with what industry could afford to pay.

I understand that this is what you are contending against, and you seek to induce manufacturers, wholesalers, retailers, and consumers to accept the present prices for goods and commodities and continue business, thereby insuring the employment of labor at the present level of wages. You very likely will be successful as to the large industries, but I think there will be more or less readjustment of the wage scale on a lower level in the smaller industries and in various localities.

### Statement by John D. Ryan, President Anaconda Copper Company

I am rather a firm believer in the natural economic laws, and I do not find myself in accord with the impression that many people seem to have that the level of prices is not likely to be radically changed over the decade. I believe that prices must be made that will equalize consumption and production.

We have seen some sharp adjustments already from war prices, and in every product in which the companies with which I am connected are interested prices have gone back to prewar averages, and in some cases lower. These products are copper, zinc, lead, and manganese.

I do not believe that the level of prices will fall permanently as low as before the war, but I am convinced that we can now look for gradual adjustments in most staple products. I think prices will have to be put where building and development of all kinds must be encouraged before we will see consumption approach production of the staples.

I think in the adjustments which are necessary labor will have to contribute its share or unemployment on a very serious scale is bound to result. I hope, however, that the intelligence and foresight of those who have to settle these questions will be such that every consideration of the needs of those who work for wages and salaries will be considered before profits, and that reductions in wages will take place only where it is imperative.

### Statement by Julius Rosenwald, Sears, Roebuck & Co.

It is my belief that the range of prices for the necessities of life will

Morrison Hotel

Chicago's Most Modern
Fireproof Hotel

Over 1000 rooms. Each room has a bath and running ice water, is completely and luxuriously furnished. Every floor has its own housekeeper — every known facility for your personal comfort.

*Nothing less than your entire satisfaction will satisfy us.*

The Home of the Famous
TERRACE GARDEN
Chicago's Most Beautiful Restaurant
Noted for its perfect cuisine
Entertainment unexcelled
America's Show Place

Morrison Hotel
Madison at Clark St.
*Personal Management*
HARRY C. MOIR

A Calcium Phosphate
C Ammonium Phosphate
I Phosphoric
D Oxalic

Baking Powder Materials

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**Victor Chemical Works**
New York CHICAGO St. Louis
*LARGEST MANUFACTURERS*

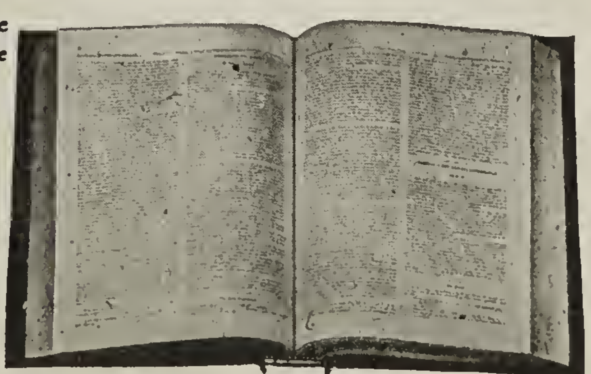
*Now is the Time—*

to bind the copies of your magazine in the Dowst Magazine Binder. It is the best and most substantial binder that has ever been brought to our attention and we know that it has no superior at the present time.

The Dowst Binder has no cumbersome back and will hold one copy flat as well as twelve. The binder is well made and finished in a high-class manner. The words "THE AMERICAN FOOD JOURNAL" are stamped on the front cover in gold leaf. It will make a handsome addition to your library.

Let us send you one on approval. Price $2.00.

*The* American Food Journal
15 S. Market Street
CHICAGO, ILL.



average little, if any, lower than at the present time. Of course, there will be some exceptions, but I do not look for a sudden or violent reduction in the near future aside from those which have been artifically stimulated.

There exists a tremendous demand in our own country for all kinds of commodities. This demand will not diminish materially until war-wrecked Europe firmly reestablishes herself on a peace-time production basis. I fully agree with those who believe that the reconstruction is going to tax our efforts perhaps even harder than did the war, and that there is cause for rejoicing in these conditions even though accompanied by high prices, for, after all, it is not a question so much of the price one has to pay as to what relation this price bears to one's own income.

## RECENT PATENTS

The following patents of interest to readers of this journal recently were issued from the United States Patent Office:

1,304,043. Cake coating machine. Pembroke D. Harton, Philadelphia, Pa.

1,304,101. Chocolate-heating apparatus. John G. Rote, Belmont, Mass.

1,304,104. Dough-treating device. Eugene Schiller, Detroit, Mich.

1,304,166. Food product and its method of manufacture. Robert Douglas, Rochester, N. Y., assignor to Douglas Packing Co., same place.

1,304,679. Method of making alimentary substance and product thereof. Eben E. Gridley, Orange, Mass., assignor to Minute Tapioca Co., same place.

1,304,892. Fruit-pulp extractor. Rufus F. Leefeld, Corona, Cal., assignor to Exchange By-Products Co., same place.

1,305,183. Pastry-making machine. Lealand C. Willcox, Des Moines, Iowa, assignor of one-half to National Pie Crust Co., Milwaukee, Wis.

1,305,244. Preservation of fruit-juices. Raymond F. Bacon, Pittsburgh, Pa., assignor to Newmont Co., New York, N. Y.

1,305,291. Method of manufacturing dextrins, gums, and modified starches. Adolph W. H. Lenders, Cedar Rapids, Iowa, assignor to Douglas Co., same place.

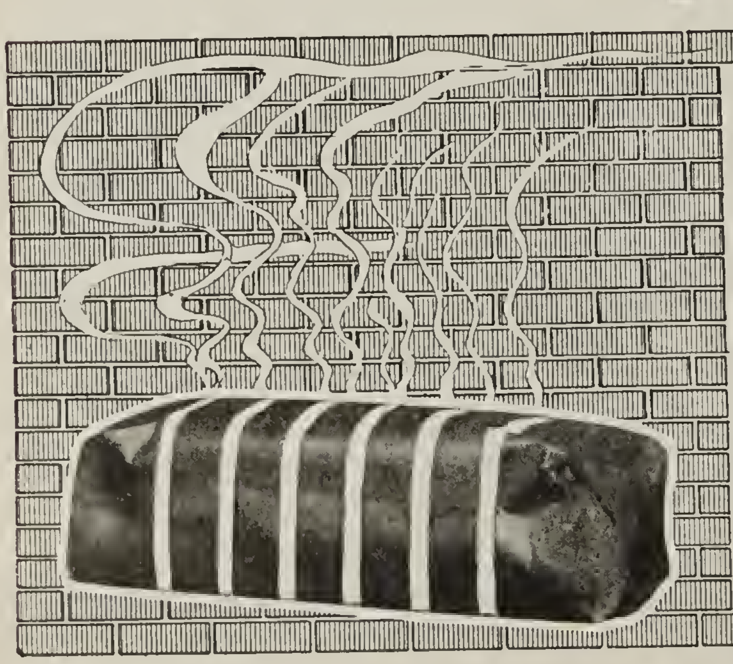
1,305,599. Process of drying various substances (vegetable). Auguste A. Goubert, Englewood, N. J.

1,306,216. Sanitary stringer attachment for confection-machines. Joseph di Giorgio, Cambridge, Mass.

1,306,333. Treatment of flour. Henry Greville, Liverpool, England.

E. PRITCHARD
*Packer and Manufacturer of the Finest*
"EDDYS"
BRAND
Canned Foods, Jellies, Preserves,
Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup
Bridgeton, N. J. and 331 Spring Street, New York

TIN and FIBRE
CONTAINERS
*for*
Foods—Drugs—Oils
Infinite Variety
Large Capacities
Prompt Deliveries
American Can Company
Chicago New York San Francisco
*With Offices In All Large Cities*



Seal Hot Bread
in a solidly waxed sealing paper and you kill the flavor—you induce mould—but if ventilated you prevent the last two and permit wrapping hot bread with no extra cost.

THE WATERPROOF PAPER & BOARD CO
BREDRAP
DESIGNERS AND MANUFACTURERS
CINCINNATI OHIO
U S A

㉙

## Milk of United States

The production of milk in the United States during 1918 was about 4 per cent more than in 1917, according to reports made by crop reporters of the Bureau of Crop Estimate. The yield per cow is estimated to be 8.2 quarts per day for 287 days of the year (equaling 588 gallons) in 1918, and 8 quarters for 285 days (570 gallons) in 1917.

To estimate the total production of milk, it is not proper to apply the above estimated yield per cow to the number of milk cows as reported by the Department of Agriculture, because this figure is based upon the census classification, which includes some heifers not yet fresh. Making what seems to be proper allowance for this (applying yield per cow to 80 per cent of the total as reported by the Department of Agriculture), indications seem to be that the total production on farms in 1918 was about 11,044,000,000 gallons, and in 1917 about 10,629,000,000 gallons. These estimates do not include production of cows not on farms (i. e., those in town and villages), which would add about 5 per cent to the estimates above for the total production of the United States.

## What the War Did for Jam Manufacturers

(Continued from page 28)

industry depends upon making the product so good that it will be eaten oftener because it is relished as a food.

### Fruits May Be Blended

Jam making gives an opportunity for making mixtures or blends of fruits, to a much greater extent than with any other product. It is along this line that the manufacturer can use his skill to great advantage in securing fine appearance and distinctive flavors.

At present there seems to be a prejudice against mixtures, the popular assumption being that the goods are not pure or that mixing is done for the purpose of cheapening the product. There has been some basis for the latter, as apple has been used in so many things as a filler. There is a real place for high-grade mixtures. This needs to be developed with the industry.

A second feature in the packing of the high-grade article is to use glass. The fact that the consumer can see the product is an asset in making sales which more than offsets the added cost.

One of the barriers to the use of jam and especially to getting new users is the price. The individual service offered on the dining cars, at hotels, and restaurants is from one and one-half to two ounces at a cost of from 25 to 30 cents or at the rate of from $2.50 to $3.00 per pound. There are few who would order who can not figure closely enough on fruit and sugar to know that this is excessive, and so pass it up.

People are not ready to believe that jam costs two or three times as much as a high-grade chocolate candy. A little common sense in popularizing the article is needed as well as in its better preparation.—Published from The Canner.

## Where We Get What We Eat

(Continued from page 19)

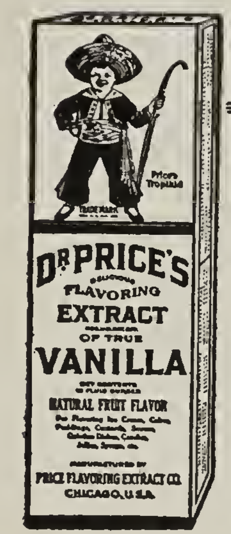
avocado pear, the custard-apple, the chermoyer, the sweet-cup, the papaw, rambutan, mango and mangosteen. South America also has cultures which we might acquire a taste for were the opportunity offorded. Who will undertake to can some of these edibles and give us at least the chance of deciding for ourselves? Whale is not yet naturalized among us, or likely to be; no free people will ever consent to have an insect diet forced upon it; the musk ox is too remote to be workable as a business proposition. It has been said by Dr. A. J. Herbertson that "the most advanced races enjoy a mixed diet brought from all parts of the world." May we not look for the further diversification of our food supply rather to the earth's soil than to its fisheries and breeding farms?

CANNED
SALMON

ALL GRADES
ALL SIZES

*Largest Distributors in the World*

**KELLEY-CLARKE CO.**
New York City Seattle, Wash.



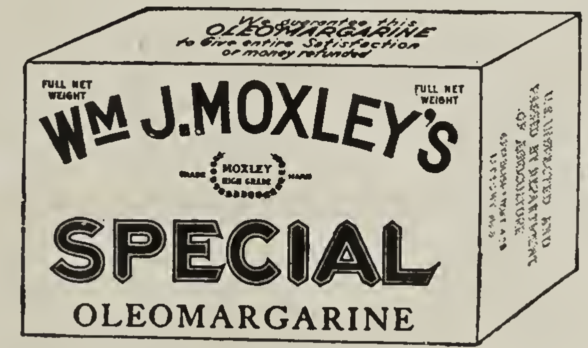
DR. PRICE'S
VANILLA

Is made from the
**Finest Mexican Vanilla Beans**

***The same high quality is found in PRICE'S***

**Lemon, Orange, Raspberry and Strawberry Pure Fruit Extracts**

**Price Flavoring Extract Co.**
**Chicago, Ill.**



**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley**, Chicago
INCORPORATED

## Says Doctor Bell

Man has at his command a rare choice of the products of the earth, very many of which contain, weight for weight, much more nutritive value than the flesh of animals and are assuredly more palatable, says Dr. Bell. Take the cereals, for example, these contain, weight for weight, actually more food units than the best beef steak in the market.

Now, let us look at this from a commercial point of view. It requires an acre of land to feed a bullock, and three years to bring it into condition for killing. At the most liberal estimate the carcase will not contain more than 400 pounds, flesh and fat, and it will take a very fine specimen to yield that. The same acre of land will yield, on an average, 40 bushels of wheat, oats or barley; and in other years at least 14 tons of potatoes, turnips, or carrots.

If we estimate the food product of an acre of land, at its lowest value, and that of the bullock at its highest value, we will find that the outcome of the acre, taking wheat as the standard, is twelve times greater than when it has been devoted to the production of wheat.

## Visitors Now Welcome at Packing Plants

After being closed for two years due to Government restrictions prohibiting visitors from the stockyards because of the war, Armour and Company's huge plant in the Chicago Stockyards is again open to visitors, an announcement from the company states.

This announcement will prove of interest to not only people who intend to visit Chicago some time this summer but to many others as well because, the announcement says, "preparations are being made by Armour and Company to open their other plants in various parts of the country so that a trip through a packing plant which is an educational one, will not just be limited to Chicagoans or visitors to Chicago, but to people in fifteen different parts of the United States, where Armour and Company have packing plants. Uniformed guides are in attendance to explain the various interesting things to be seen."

---

Spend wisely and save for future needs. War Savings Stamps and Thrift Stamps will help you to financial peace and help your Government finance world peace.

## What is an Intoxicating Liquor?

Washington advices are to the effect that Secretary of War Baker has approved the verdict of the Judge Advocate General of the army that any beverage containing ¼ per cent alcohol is intoxicating from the army point of view, and is, therefore, barred from army camps and adjacent zones. It was a simple matter of routine to affirm this decision, which was made in response to requests from camp commanders for an interpretation of section 12 of the selective service law dealing with the prohibition of alcoholic liquors in and about military posts, but it carries in its train a lot of trouble.

Out of the sixty-five near-beers analyzed only eleven were free from alcohol. Forty-five out of fifty-one soda waters were alcoholic and only a single sample of grape juice out of eleven on the market was free from alcohol, according to the War Department standard, and twenty-two out of twenty-three samples of cider, genuine and imitation, were similarly a menace. The sinfulness of cider is attributed largely to its reprehensible habit of fermenting after the kegs were tapped.

Better WET Than Dry!

——unconsciously it comes to your mind as you watch the sparkling water bubble forth—and you are reminded that it is a peculiar quality of

**KVP Vegetable Parchment Paper**

This paper protects enfolded products when it is dry, and also when it is wet! Contact with water makes it stronger, not weaker. When dry it is a very, very strong paper—and it is grease-proof, too.

*Secure samples from*

KALAMAZOO VEGETABLE PARCHMENT COMPANY
KALAMAZOO, MICHIGAN
*"The World's Model Paper Mill"*
Makers of bond and waxed papers and vegetable parchment

**Stick to the Steady Seller**

Merchants who have maintained their stock and their activity on

**EGLIKE**
51% EGG

have enjoyed big sales the year around. Poor, inferior non-egg compounds only bring condemnation from all sources. It is a profitable habit to sell Eglike.

**The Marwin Food Co., Marion, O.**

## Swat Roosters and Save Millions

Roosters not needed as breeders should be put in the same class as flies when it comes to swatting. It is estimated by the United States Department of Agriculture that $15,000,000 worth of eggs spoil yearly simply because they are fertile. Fertile eggs, when subjected to high summer temperature, begin to hatch just as when placed in an incubator or under a hen, and even though the process continues but a short time the egg becomes unfit for food. This spoilage of eggs can be entirely prevented by swatting or disposing of the rooster after the breeding season is over. The campaign for the production of infertile eggs has been waged several years by United States Department of Agriculture poultry specialists, and is being taken up with renewed vigor in States where summer temperatures are highest and losses are greatest. Weeks have been designated "Swat the Rooster" for the sale of surplus male birds. Enormous quantities of roosters, not needed and being fed needlessly, have been marketed during such weeks. It is much more generally understood that hens will lay just as well without a male in the flock.

## Brewers to Make Candy

Brewers of Boston are planning to become candy makers. Officers of one company said recently that they had applied to the Building Inspection Department for permission to make changes in their brewing plant in Roxbury to equip it for candy manufacture, and officers of two other brewing firms have filed certicates of incorporation as a chocolate company. Henry A. Reuter said recently that his brewing organization would be mantained for a time, in the hope that the manufacture of light beers might be permitted, but that members of the firm were interested in the proposed candy making business.

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The U. S. Health officials are asking, "What has become of the old-time bowl of cornmeal mush and milk? It is an American dish, cheap, nourishing and palatable. We of the older generation loved it, and we should go back to it." Mush and milk, according to the food experts, furnishes a balanced ration, yet contains neither wheat, meat nor sugar.

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Improved housing conditions make for a healthy, happy citizenship by serving to stimulate ambition along right lines of endeavor; by promoting self-respect and confidence and by improving the community death and sickness rates.

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Under the common law any person who maintains a public nuisance can be indicted. The courts have decided that a fly breeding manure pile is a public nuisance; so that even in the absence of an ordinance on the subject, the owner of a manure pile can be indicted and punished for maintaining a public nuisance.

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## Shall We Tell Student Girls Advertised Goods Are Better

(Continued from page 8)

ter or by mail, may become an increasing delight because of their knowledge of the economic value of advertising and their wider acquaintance with advanced methods of merchandising. And what is of equal importance, Mrs. Zuber, their teacher, told me that because of the lectures to the girls, it was easier for them to understand the lessons in their text-book and to see the practical application of many of the principles presented. In other words, by tying up the two, she found that she was able to keep their interest keyed up to a higher and more satisfactory level.

THERE IS
CLEANLINESS, HEALTH INSURANCE, ECONOMY AND CONVENIENCE IN
Our PET BRAND Evaporated Milk
*The Standard of the World*
Wins and Holds Trade on account of its Superior Quality
PREPARED BY
**Helvetia Milk Condensing Co.**
HIGHLAND, ILLINOIS
ORIGINATORS OF EVAPORATED MILK

**Whiter—Sweeter—Lighter Bread and Cake**

The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

*Rumford*
THE WHOLESOME
BAKING POWDER

insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

RUMFORD CHEMICAL WORKS,
Providence, R. I.

ONE POUND RUMFORD BAKING POWDER

L.71 10.17

## Colors in Food

Food Inspection Decision 175 has been amended by striking out from the list of the permitted dyes contained herein, under *"Yellow shades,"* the words "11. Sudan I." and "16. Butter yellow."

Hereafter the coal-tar dyes which may be used in food, subject to the provisions of Food Inspection Decisions 76, 117, and 129, shall be the following:

*Red shades:*
- 107. Amaranth.
- 56. Ponceau 3 R.
- 517. Erythrosine.

*Orange shade:*
- 85. Orange I.

*Yellow shades:*
- 4. Naphthol yellow S.
- 94. Tartrazine.
- Yellow A. B. (Benzeneazo-β-naphthylamine).
- Yellow O. B. (Ortho-Tolueneazo-β-naphthylamine).

*Green shade:*
- 435. Light green S. F. yellowish.

*Blue shade:*
- 692. Indigo disulfoacid.

The numbers preceding the names refer to the numbers of the colors as listed in A. G. Green's edition of the Schultz-Julius Systematic Survey of the Organic Coloring Matters, published in 1904.

Sudan I. and butter yellow have been found unsatisfactory in practical use for food coloring purposes, and these colors, therefore, are withdrawn from the list of those which may be certified for use in foods.

## A Hint in Buying Watermelons

A woman who was about to buy a watermelon on an eastern city market recently noticed that the stem was covered with a bluish, starchy paste, which she took to be a disease. Otherwise the melon seemed to her a choice specimen of the melon grower's art. She could not, however, be persuaded to take it until she had looked over many others in the dealer's assortment and found that all were similarly affected. Many careful buyers may have the same experience in buying watermelons this year, but they need have no fear of inferior quality, because of the unusual appearance of the stem. It is not a disease, but a means of preventing one of the most serious diseases of watermelons which growers of the southeastern states have to contend with in shipping.

This treatment, developed by the United States Department of Agriculture, prevents stem-end rot, and consists in painting the freshly cut stem of each melon with a paste made of bluestone mixed with starch. The paste should be put on the stem only, but some growers, through carelessness or haste, may smear it on the rind, which lessens the attractive appearance, but not the quality of the melon.

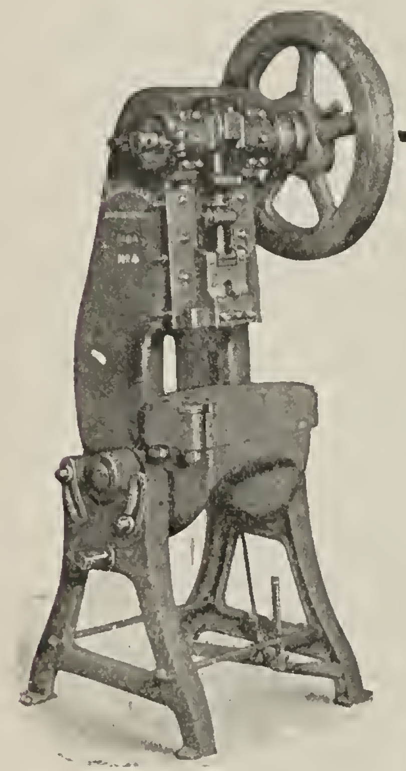
## No Evasion

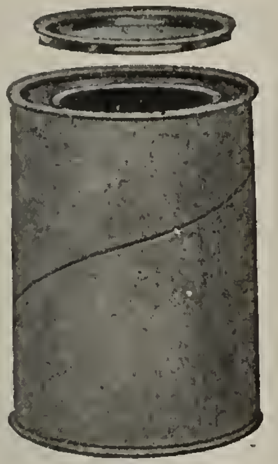
Don't try to sidestep or evade an honest duty. You can no more get away with it than did the darkey grocer who wanted to avoid a positive guarantee. A colored woman stopped in front of his store and asked:

"Is dese aigs fresh?"

He answered: "I ain't sayin' dey ain't."

The woman snapped: "I ain't axin' you is dey ain't. I'se axin' you is dey is. Is dey?"—Kablegrams.



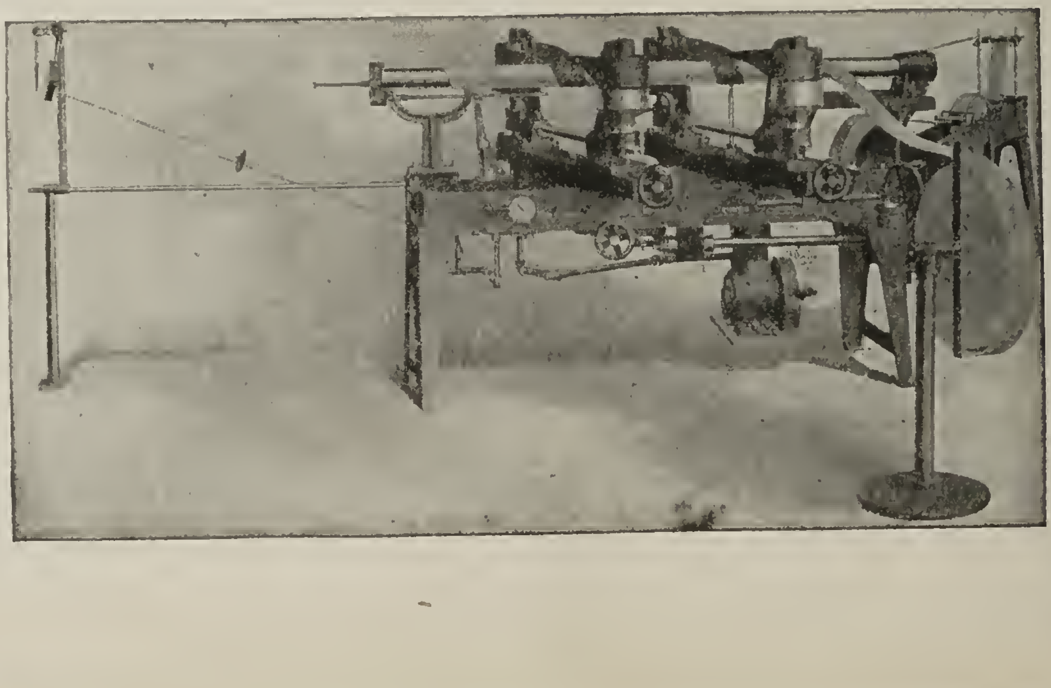


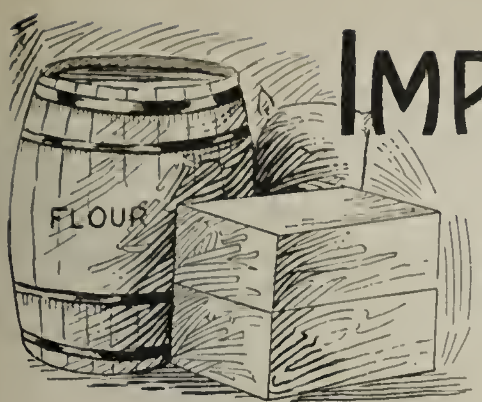
LEFFLER SPECIAL MACHINERY

Paper Can Machinery
Automatic Tin Can Machinery
Sanitary Can Machinery
Metal Package Machinery
Soldering Machinery

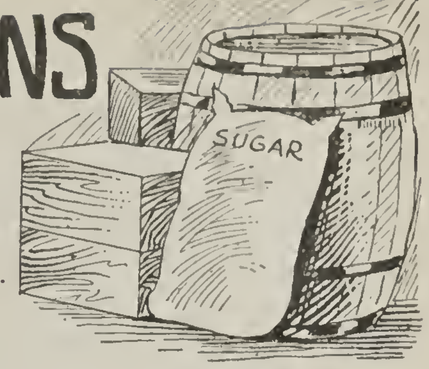
*Catalogues on request*

**Chas. Leffler & Co.**
Clymer Street
Kent Avenue
Brooklyn, N. Y.





# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY



**Alimentary Paste Manufacturers' Association, Inc.**
W. A. Schmitt, *Secretary*, C. F. Mueller Co., Jersey City, N. J.

**American Association of Creamery Butter Manufacturers**
Prof. George L. McKay, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Association of Refrigeration**
J. F. Nickerson, *Secretary*, 431 South Dearborn St., Chicago, Ill.

**American Bottlers' Protective Association**
William T. Phillips, *Secretary*, 218 East Thirty-seventh St., New York, N. Y.

**American Chain of Warehouses**
New York City.

**American Chemical Society**
Charles L. Parsons, *Secretary*, Box 505, Washington, D. C.

**American Corn Millers' Federation**
Douglas Lackey, *Secretary*, Postal Telegraph Bldg., Chicago, Ill.

**American Cranberry Growers' Association**
H. B. Scammell, *Secretary*, Toms River, N. J.

**American Fair Trade League (Price Maintenance)**
Edmond A. Whittier, *Secretary*, Fifth Avenue Bldg., New York, N. Y.

**American Feed Manufacturers' Association**
L. F. Brown, *Secretary*, Milwaukee, Wis.

**American Fruit and Vegetable Shippers' Association**
R. L. Evans, *Secretary*, 139 North Clark St., Chicago, Ill.

**American Grocery's Society (Anti-Chain Store)**
Lloyd Curtiss, *Secretary*, Newark, N. J.

**American Home Economics Association**
Miss Cora Winchell, *Secretary*, 1211 Cathedral St., Baltimore, Md.

**American Institute of Weights and Measures (Anti-Metric)**
30 Vesey St., New York, N. Y.

**American Manufacturers' Association of Products from Corn**
L. Hohmeyer, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Meat Packers' Association**
Robert G. Gould, *Secretary*, 116 Nassau St., New York, N. Y.

**American Metric Association**
Howard Richards, Jr., *Secretary*, 156 Fifth Ave., New York, N. Y.

**American National Live Stock Association**
E. W. Tomlinson, *Secretary*, 515 Cooper Bldg., Denver, Colo.

**American Paper and Pulp Association**
A. D. Naylor, *Secretary*, Room 604, 18 East 41st St., New York City.

**American Poultry Association**
E. B. Campbell, *Secretary*, Mansfield, Ohio.

**American Society of Refrigerating Engineers**
William H. Ross, *Secretary*, 154 Nasnau St., New York, N. Y.

**American Specialty Manufacturers' Association**
H. F. Thunhorst, *Secretary*, 100 Hudson St., New York, N. Y.

**American Spice Trade Association**
John Clarke, *Secretary*, 124 Front St., New York, N. Y.

**American Warehousemen's Association**
Charles L. Criss, *Secretary*, Liberty and Second Aves., Pittsburgh, Pa.

**Biscuit and Cracker Manufacturers' Association**
Edward Griswold, *Secretary*, 105 Hudson St., New York City.

**Canning Machinery and Supplies' Association**
J. A. Hanna, *Secretary*, Cadiz, Ohio.

**Chain Store Grocers' Association of New York**
W. E. Evans, *Secretary*, 97 Warren St., New York, N. Y.

**Council of Grain Exchanges**
J. Ralph Pickell, *Secretary*, 417 Postal Telegraph Bldg., Chicago, Ill.

**Dried Fruit Association of California**
Henry P. Dimond, *Secretary*, 255 California St., San Francisco, Cal.

**Flavoring Extract Manufacturers' Association**
G. M. Day, *Secretary*, 117 Buffalo St., Milwaukee, Wis.

**Fraternity of Operative Millers of America**
Kent, Ohio.

**Grain Dealers' National Association**
Charles Quinn, *Secretary*, Toledo, Ohio.

**Insecticide and Disinfectant Manufacturers' Association**
Frank Hemingway, *President*, New York, N. Y.

**International Apple Shippers' Association**
R. G. Phillips, *Secretary*, 522 Mercantile Bldg., Rochester, N. Y.

**International Milk Dealers' Association**
Samuel O. Dungan, *Secretary*, 1100 East 15th St., Indianapolis, Ind.

**Inter-State Cotton Seed Crushers' Association**
Louis N. Geldert, *Assistant to the President*, 1339 H St., N. W., Washington, D. C.
Robt. Gibson, *Secretary*, Dallas, Tex.

**Maltsters' Bureau of Statistics**
R. A. Wittl, *Secretary*, 10 North Dearborn St., Chicago, Ill.

**Manufacturers' & Dealers' Association of America (Anti-Prohibition)**
A. P. Daniels, *Business Manager*, 36 West Randolph St., Chicago, Ill.

**Manufacturing Chemists' Association**
A. H. Weed, *Secretary*, 53 State St., Boston, Mass.

**Millers' National Federation**
A. P. Husband, *Secretary*, 911 Royal Insurance Bldg., Chicago, Ill.

**National Association Apple Cider & Vinegar**
W. H. Armstrong, *Secretary*, Rochester, N. Y.

**National Association of Box Manufacturers**
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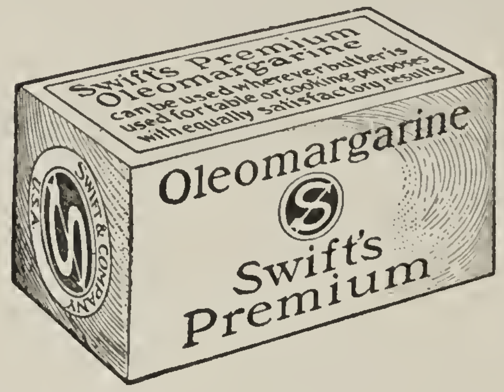
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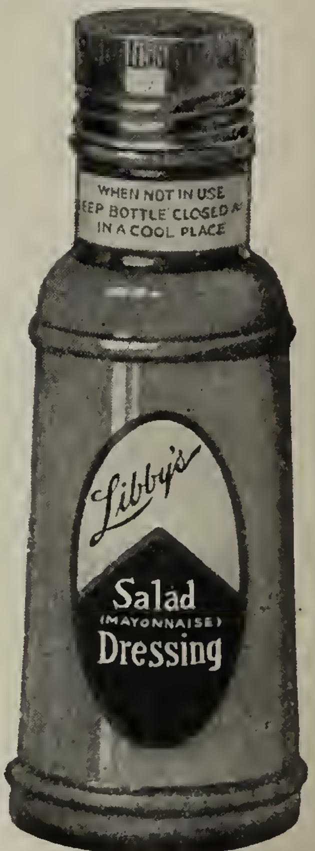

# Whole Milk as a Market Commodity

*By B. H. Hibbard and H. E. Erdmann*

### An Investigation Made at the Agricultural Experimental Station of the University of Wisconsin

*Is the price of milk too high? Milk prices, although they have increased during the past year, have not increased as rapidly as the price of other foodstuffs. Many consumers do not realize the food value of milk.*

*What is Milk? There are many grades of milk commonly found on the market. Cities maintain milk inspectors to see that the supply is kept up to a high standard. The town cow is passing.*

*The farmer sells his milk on the basis of its weight. The present system of payment offers little inducement to improvement. It is hard to convince a man to produce better milk unless he gets more for it.*

*The farmer has a number of markets for his milk. He has the city market, the creamery, the cheese factory, the condensery, and the ice cream factory.*

*The condensery is a new factor in milk marketing. It competes with the other markets and has certain advantages. The number of condenseries is increasing.*

*The present system of milk delivery in cities is expensive. Frequently four or five wagons pass the same house. This duplication of route and equipment is added to the price the consumer pays.*

*Who gets the money? The farmer gets about half the price the consumer pays. Transportation costs about 7.5 per cent, expense of delivery 24 per cent, handling at the plant 18 per cent.*

JUST how much milk is consumed it is impossible to say. On the farms no account is kept of the amounts used. In the smaller towns much is sold by people who keep a cow for their own use and sell only the surplus; in the outskirts of cities much is obtained from farmers living almost within the city limits, while only a small proportion is sold by regular milkmen. In the larger cities a greater proportion is sold by regular milkmen, and it consequently becomes easier to estimate the consumption.

It appears that the per capita consumption varies from something over .4 to a little more than .6 of a pint daily in cities and towns, which is probably fairly representative of general conditions.

In addition to the whole milk, there are consumed considerable quantities of sweet cream and condensed milk. Estimates made would indicate that upwards of .033 of a pint of cream is used per capita daily. Assuming that a pint of cream represents six pints of milk, there would be about a fifth of a pint of milk used per capita as cream, bringing the total for milk and cream up to something like .6 to .8 of a pint of milk daily. No estimate was made of the per capita consumption of condensed milk, although this must be considerable, since almost every grocery and confectionery store carries it in stock.

### Grades of Milk

It is undoubtedly true that market milk is of a better quality now than formerly, and that general conditions of marketing are better than they were a few years ago. Thus an increasing proportion of the milk is sold in glass bottles. It is only within the past fifteen or twenty years that bottling has come to be at all a common practice.

In some cities retail milk is required by city ordinance to be sold in bottles. In other cities some milkmen sell only in bottles, others only in bulk, while most of them sell both in bulk and bottled.

Pasteurization is becoming more general, especially in the larger cities. In the smaller towns and villages, where consumer and producer are often—perhaps usually—old friends or acquaintances, pasteurization is not likely to come into general use, even though it should be made practicable on a small scale. Here the fresh morning's milk, or, at most, the preceding evening's milk is delivered in the morning. In the cities, on the other hand, where producers and consumers are becoming more and more widely separated as the cities grow larger, and where a middleman usually takes over the distribution, pasteurization is coming to be recognized as a necessary safeguard.

*The passing of the town cow* is a noticeable feature of the change that is coming about in the milk business. Whether or not it is a desirable change is often questioned, although, with modern conditions, it is a necessary change. It may be attributed mainly to the following causes:

(1) Growth of cities, with a consequent increase in municipal sanitary regulations.

(2) Increased restrictions placed on the retailing of milk. Most of those who keep a cow for the home supply have a few quarts to retail at certain seasons of the year, and to these any restrictions are irksome.

(3) Increased cost of keeping cows in town, due to high prices of feeds and barns, and to the high prices of the cows themselves.

(4) Improvement of the milk supply of the various municipalities.

*Legal grades of milk.* The Wisconsin statute defines milk thus:

“For the purposes of this act, the term ‘milk’ shall mean the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, including that obtained within eight days before and four days after calving, and contains not less than 8½ per cent of solids not fat, and not less than 3 per cent of milk fat.”

Aside from the above provisions there are no legal standards or grades of milk. Hence anyone may call his product by any name he pleases, thus giving numerous instances of the sale of unofficial or so-called "certified" or "inspected" milk, which in no sense conforms to that commonly known by those names.

A very large part of the milk is ordinary milk, either raw or pasteurized. Practically all the milk that is retailed directly by producers is raw, while much of that sold by dealers is pasteurized. About all that is required of ordinary milk as commonly sold is that it comply with the state law, that it be clean enough to pass the inspection of the buyer, and that it and the conditions under which it is produced comply with state and city sanitary requirements as interpreted by state or city officials.

What may be called graded milks are of a wide variety, so far as names are concerned. Best known among these is certified milk.

This term is properly applied to milk producers under the approval of a medical milk commission The term "certified milk" originated with Dr. Coit of Newark, New Jersey, who formulated the plan for the first medical milk commission, which was organized in 1893. In 1904 the term "certified" was registered in the United States patent office to protect it from being degraded by milkmen not under contract with a medical commission. There are at present seventy-nine such medical milk commissions in the United States, which are members of the American Association of Medical Milk Commissions.

A few states forbid the sale of milk as "certified" unless produced under the approval of regularly organized medical milk commissions.

Owing to its high price, however, certified milk has a very limited market. Nor does it appear that there is very great opportunity for widening this market at present prices, especially when ordinary milk, with as much food value, is being made safe by pasteurization and general sanitation. At present the use of certified milk is confined pretty largely to the wealthy classes or to those to whom its use has been recommended by a physician.

In a number of cities unofficial certified milk is sold but without full formal sanction. Some of this is of a very high grade, practically equalling certified so far as bacterial standards are concerned. In most cases this is not produced under conditions that would comply with certification rules. Besides, most of the producers of such milk sell in cities lacking medical milk commissions. Men selling this grade of milk frequently have the backing of a group of local physicians, sometimes even of a local physicians' organization. They adopt the name "certified" because its meaning is well known to stand for excellence, and sometimes because they hope eventually to produce bona fide certified milk.

"Inspected milk" is another name often applied to milk of no very definite standard, although the term is intended to convey—and usually does convey—the idea that the milk is produced and sold under frequent inspection and in accordance with rules laid down by a health department. A recent Milwaukee ordinance provides that:

"The term 'inspected milk'—is limited to raw milk drawn from cows proved to be healthy by the tuberculin test and by the certificate of a qualified veterinarian, and from dairies that score not less than 70 per cent according to the present federal government scoring system, and from cattle that are fed, watered, housed and milked under conditions known to and approved by the Commissioner of Health or his duly authorized assistant."

BACK FROM THE MORNING TRIP

These teams during a large part of the year start to work between 1 and 3 o'clock in the morning and have done a day's work before noon.

The Chicago milk ordinance defines "inspected" milk as "milk should more properly be called, are produced in dairies that have been inspected and approved by the Commissioner of Health." To obtain such approval it must be produced on farms scoring not less than 70 on the Chicago score card, must be from cows tested and found free from tuberculosis and other diseases within six months, must be cooled to or below 55 degrees Fahrenheit, must be properly bottled and capped, must not yield more than a trace of sediment on a sediment tester disk (from a pint of milk), and must contain over 100,000 bacteria a cubic centimeter from October 1 to May 1, inclusive, and not more than 150,000 bacteria from May 2 to September 30, inclusive.

Other grades, or brands, as they should more properly be called, are "Guernsey," "Jersey," "Baby Milk," "Modified Milk," "Clarified and Pasteurized Milk," and so on. The first two are quite common and usually bring a cent or two more a quart than the prevailing price, mainly because of their greater richness. Since a great demand exists for good milk for children, there are numerous dairymen who offer a "baby milk." The quality varies from mediocre to very excellent, some practically equalling certified milk. One dealer was found to be selling a milk modified to suit the demands of particular infants. The milk in this case is modified mainly by varying the fat, total solids, sugar, and mineral content, each infant's particular case being studied and the milk modified as seems necessary. In many instances, of course, such special brands stand for nothing so far as concerns extra quality or safety, although perhaps in most cases they indicate that the producer is making a special effort to put out a good product. Such special brands of milk usually command somewhat more than the prevailing price, sometimes 3 to 5 cents more. Success in selling a special brand at a higher price depends on several factors, among which the following are probably the most important:

1. Character of the producer. This is especially important in smaller places, where the producer has the opportunity of getting acquainted with his customers. Much depends on the confidence placed in the producer.
2. Quality of milk: whether or not it comes up to the standards claimed for it.
3. Effect upon customers of a visit to the farm. Probably no other one thing is of more importance than a pleased visitor.
4. Backing of physicians and health officers. Physicians frequently recommend a particular dairyman's milk. Health department officers usually hesitate to do so unless what they recommend is outstandingly better.
5. Effective advertising.

It is undoubtedly true that a milkman who puts on the market a special grade of milk benefits not only his own patrons but the patrons of other milkmen as well; for, in order to compete with him, others will often try to improve their own milk, even going to the extent of imitating brands.

## Health Regulations that Affect the Marketing of Milk

An attempt was made to determine the extent to which the marketing of milk is regulated by the various cities and villages. Letters were sent to 128 cities and incorporated towns. Replies from 120 of these indicate that milkmen are required to be licensed in 26, while in 12 of the 120, stores which deal in milk are required to be licensed. So far as can be learned villages rarely require milkmen to be licensed. Through the Municipal Reference Bureau an attempt was made to secure copies of all existing milk ordinances. Letters sent to all the cities, towns, and villages of 1,000 or over brought 78 replies. Of these, 29 (including one village) have ordinances. A study of the provisions of 26 of these reveals the following provisions.

| Provisions | No. of instances |
|---|---|
| Inspection of dairies required (inspection specifically authorized in nearly every case. | 15 |
| License required for milkman. | 22 |
| Certificate required showing herd to be free from dangerous diseases, especially tuberculosis, test for the latter being usually specifically mentioned ...... | 15 |
| Specific exemption for pasteurized milk as to provision 3.... | 3 |
| Specific regulations as to handling of milk ............... | 13 |
| Covered wagon required for delivering milk ............. | 3 |
| Forbidding use of any but single service milk tickets ......... | 3 |
| Requiring higher percentage of total solids than is required by state law (state law requires 11½ per cent, while the 7 referred to require 12 per cent). | 7 |
| Specifying a bacterial count (lowest 250,000, highest 500,000 to the cubic centimeter).. | 8 |
| Requirements of a fee, usually $1 per year; some times based on the number of cows (10 cents or more a cow), sometimes on the number of delivery wagons (50 cents to $1 a wagon) .................. | 21 |

THE RECEIVING AND PASTEURIZING ROOMS
The milk is inspected for sweetness and cleanliness as soon as unloaded. Not only does pasteurization render milk safe, but where it cannot be delivered to the consumer within the first day after being drawn it is the only feasible means of keeping the milk sweet.

*Inspection in the Chicago district.* Representatives of the Chicago Health Department make frequent inspections of Wisconsin farms producing milk for Chicago. Such farms must, of course, comply with the same regulations under which Illinois milk is produced. The Illinois state law provides that milk must contain not less than 12 per cent of total solids, not less than 3 per cent of which must be butter fat. The Chicago milk ordinance requires that all milk, except inspected milk, be pasteurized. Temperatures of pasteurization are to be recorded by a recording thermometer kept under lock and key in the control of the Commissioner of Health.

About 80 per cent of the milk supply of Chicago is pasteurized, about 50 per cent of the total being pasteurized in the country bottling plants.

In addition to inspection by the city health department, a number of the large dealers themselves inspect the farms of all their patrons. The Bordens, for example, at their 16 country plants and condenseries in the Chicago district, have 16 inspectors, one for each plant, and three veterinarians.

*Less opposition to regulations and inspection than formerly.* There is coming to be a noticeable recognition of the right of cities to regulate not only the distribution of milk, but the conditions of production as well. There has been, and very frequently there still is, strenuous opposition to any attempt to enforce sanitary regulations for the production and handling of milk, but at present there seems to be a changed attitude on the part of many producers. The feeling largely prevails, especially among the more up-to-date producers and distributors, that the people of the city have a right to say what kind of milk they shall buy, and that the only way for them to do so is through their representative, the city health department. But these men also feel that they, the producers and distributors, should be paid accordingly; that they are entitled to what they would get if the milk were sold to cheese factories or creameries plus a small bonus for the extra care required by the city.

Again, many producers are beginning "to recognize the *economic worth* of regulations first recommended for sanitary reasons." Thus, the more up-to-date dairymen consider it good business to have their cows tuberculin tested; to have light, well-ventilated barns; to use small-topped or partly covered pails; to practice prompt cooling; to sterilize milk utensils; and even to pasteurize milk. They consider the adoption of such methods good business because they result in healthier cows, more satisfied customers, and fewer complaints.

### Basis of Payments to Farmers

The most usual basis upon which milk is bought is that of weight. This is especially true in the smaller milk plants. In some instances, however, there is the stipulation that the milk must contain not less than 3.5 per cent butter fat. In other instances the weight basis is combined with some of the other tests. Most common among these is the Babcock test, which, because of the fact that butter fat is the most valuable constituent of milk and that milk and cream are so often bought solely upon the basis of their butter fat content; is considered also the most important test. At many of the country bottling plants of the Chicago distibutors and at most of the condenseries, the price quoted is on the hundred-weight at a given test —3 or 3.5 per cent—with a certain addition or subtraction for a test above or below the one named. Thus a frequent method is to quote the price on the hundred-weight of 3.5 per cent milk, with the stipulation that 3 cents a hundredweight will be added for each .1 per cent above 3.5 per cent and the same deducted for each .1 per cent below that test. The main objection to this method seems to be that farmers are inclined to distrust the buyers' tests.

COOLING AND BOTTLING THE MILK
The milk is cooled immediately after being pasteurized. The bottling is done very rapidly with machinery. This is an expensive process in view of the short life of the bottle. It is the best means yet devised for handy and sanitary delivery.

Other sliding scales have been suggested to take account of solids not fat, of barn score or of bacterial count; but most of these have appeared to be more or less difficult of application and have usually met with little favor by farmer or distributor.

The only other test used at all in determining composition is the lactometer, an instrument used mainly for detecting watering of milk, although it has also been used in estimating the amount of solids.

The sediment test is commonly used in determining cleanliness. Its application is decidedly limited, however, by the fact that it shows dirt only when the producer has been so grossly negligent as not only to allow his milk to become contaminated, but to leave in it the coarser particles of filth. A good cotton strainer or a clarifier will remove all such particles, so that the milk appears perfectly clean. The dangerous portion of the filth, the bacterial life, however, has not been removed. Hence the results of the sediment test may be misleading.

The bacterial count, because of its difficulty of application, is a test seldom applied except by the larger concerns or by the various health departments. If properly made, it is the most valuable test known, especially as to the healthfulness of the milk. In very few instances is it used at all as a basis of payment.

The alcohol test is frequently used by condenseries, mainly as a check on the health of the cows, the stage in the lactation period, and the age of the milk.

Other indications of quality that are usually used at the milk plants are odor and the appearance of the strainer cloth at the weigh can. Soured or filthy milk has a very noticeable odor after being confined in a can for a time. The man who opens the cans at the receiving room becomes expert in detecting undesirable milk, especially in the summer months. Then, as the milk is emptied into the weigh can, the strainer cloth quickly shows any coarse particles of foreign matter. In many plants the last two are really the only tests regularly applied.

A notable exception to the purchase by weight method is the purchase by 8-gallon can. This, of course, is accompanied by the stipulation that the fat test is to be not less than 3 per cent and that the milk is to be clean and unadulterated. The major portion of the milk going to Chicago directly from the producer is also sold by the 8-gallon can.

*Present basis of payment offers little inducement to improvement.* Under the present system as used in most places, no real inducement is offered for the production of a high grade of milk. The man who produces a milk that will just barely be accepted gets as much as does the man producing a rich, clean milk, excepting, of course, those cases where a sliding scale is in use as a basis for payment. It is hard to convince a man that he ought to produce a better quality of milk without at the same time offering him a financial reward for doing so.

With milk, as with many other commodities, the consumer cannot recognize quality readily. The color is often a guide; but some milk is much yellower than other, even though no richer, or perhaps not so rich, in food value. The cream line is another guide but is equally untrustworthy. Methods have been devised, although not yet in common use, of expanding the cream line.

Again, pasteurization above 147 degrees Fahrenheit destroys in some measure the cream line, not necessarily by reducing the food value, but by preventing a rapid separation of the cream from the milk. The length of time milk will remain sweet is not satisfactory guide. Of raw milk it may be said that the cleaner the conditions of production and the lower the temperature at which it has been kept, the longer will it remain sweet. But milk that has been pasteurized at a high temperature may also fail to sour, even after puterfactive changes have begun to take place.

Many dairymen do not seem to realize the importance of cleanliness and prompt cooling to the keeping qualities and healthfulness of milk. In many cases inadequate provision is made for keeping the milk utensils and bottles clean, reliance being placed on some of the various sterilizing compounds rather than upon hot water and steam. Such men often buy expensive machinery for handling the milk, but, lacking a sense of cleanliness, cause increased contamination by carelessness as to cleaning; and the consumer, misled by the elaborate equipment, believes that he is using a safe milk. This is no slur upon the man who uses up-to-date equipment as it should be used, and who consequently markets a superior product; but the individual consumer can only with difficulty know the true condition, and is, therefore, likely to buy the cheaper milk largely in disregard of quality.

*The need for efficient inspection.* This discussion shows why the unscrupulous dealer can foist upon the consumer a low grade of milk, and, because of lower cost or unfair methods, either force his competitors out of business, or compel them to handle equally low grade. Competition in the milk business thus exerts a strong pull toward low quality. Here lies the justification of, and the urgent need for milk inspection, for doing at public expense what the individual cannot do for himself, except at a much greater expense. This likewise argues for efficiency in delivery.

### Alternative Markets

What are the alternative markets in which a producer may sell? For many producers there is no good alternative market; that is, in some localities the city demand has driven out local cheese factories and creameries, leaving the city milk trade as the farmer's only market, although even here he can make his cream into butter or cheese on the farm, or he can ship the cream to a creamery or ice cream factory.

Nearly every farmer has several markets to which he can turn with no great inconvenience in making the change from one to the other. Enough men are always so located to make sure that prices to be obtained in the leading markets are never for long far apart. If, for example, the demand for condensed milk were suddenly greatly increased, prices for that commodity would go up, and condenseries would be able to outbid more of the other markets, with the result that milk formerly going to the latter would go to the condenseries.

*The creamery as an alternative market.* Although a creamery can seldom outbid a city for the milk near at hand, it can readily compete further out. Creamery prices are lower than city prices, but they are for only a portion of the milk. The farmer has his skimmilk to consider in addition. Where there is young stock to be fed, skimmilk has a value variously estimated at 25 to 75 cents a hundred weight, thus easily bringing the returns to a point where they approach or equal those for whole milk. Moreover, cream need not be marketed every day, so that the man who sells cream saves a trip to the creamery or milk plant at least every second day. Because

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# PROGRAM

## Twenty-third Annual Convention Association of American Dairy Food and Drug Officials, New York City, September 8th-9th-10th-11th-12th-13th, 1919. Headquarters: Commodore Hotel, Convention Hall.

OFFICERS

Benj. L. Purcell, President, Virginia
James Sorenson, First Vice President, Minnesota
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Thomas Holt, Third Vice President, Connecticut
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John B. Newman, Secretary, Illinois

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E. F. Ladd, North Dakota
President and Secretary of Association Ex-Officio

COMMITTEE ON CO-OPERATION

J. S. Abbott, Chairman, Washington, D. C.
C. R. E. Rose, Florida
Fred L. Woodworth, Michigan

THE coming convention of the Federal Food Control Officials promises to be one of the best in program and the greatest in attendance ever held in the history of the association. The after-war conditions have placed a heavy burden on the Food Officials and are so unusual in many respects that no precedent is possible to follow. Consequently the greatest efficiency can only be secured by personal contact with each other, matching experiences and the intimate co-operation only possible at an annual convention. The Executive Committee has made a strenuous effort to produce a strong program and as will be seen from the subjects selected and the personnel of the speakers they have most ably succeeded. The program is not entirely complete or laid out on a time schedule as we go to press, but in September we will announce this completely and the time when speakers address the association. This issue will go to press just prior to the convention. In this connection every Food Official or those interested in this convention are strongly urged to make their hotel accommodations at once, as most of you know New York is always crowded, and while the Commodore Hotel has made a bulk reservation in anticipation of this convention, our latest report indicates that these rooms are rapidly being reserved. Therefore if you anticipate attending this convention, by all means, wire in your reservation direct to the Commodore Hotel, New York, immediately.

The program contains the names of many speakers of national reputation and practically every phase of this interesting work has been covered. Among the speakers will be:

Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry of the U. S. Dr. Alsberg will speak on the subject of Food Containers and Utensils.

Rupert Blue, Surgeon General of the United States Public Health Service, has been asked to give a paper on the Relation of Sanitation of Foods to Public Health.

Another speaker of national prominence expected to address the convention is Dr. Alonzo E. Taylor, Adviser on Nutrition of the Food Administration, also the University of Pennsylvania. Arjay Davis, President National Wholesale Grocers' Association, has also been asked to speak.

Food Control from the Standpoint of Human Nutrition will be discussed by Dr. E. V. McCollum of the Johns Hopkins Hospital, Baltimore. Dr. McCollum needs no introduction to the American public.

### Municipal Milk Control

By Ernest Kelly, *Market Milk Division*, Bureau of Animal Industry, U. S. Dept., Washington, D. C.

Discussion by Ole Salthe, *Supervising Chief Food Inspector*, New York City.

### Federal Food & Drug Control

By W. G. Campbell, *Assistant Chief*, Bureau of Chemistry, U. S. Dept. Agric., Washington, D. C.

Discussion by Thomas C. Gault, *Dairy & Food Commissioner*, Ohio.

### Sanitary Laws and Its Effectiveness in Sanitation of Foods

By Cassius L. Clay, *State Analyst*, Louisiana.

Discussion by J. M. Moore, *in charge Division of Foods, Drugs & Feeding Stuffs*, Alabama.

### State Drug Control, Present and Future

By H. E. Rose, *State Chemist*, Dept. of Agriculture, Florida.

### Standardized Milk

By Julius Hortvet, *State Analyst*, State Dairy & Food Commission, St. Paul, Minn.

### Good Eggs: State and Interstate

By Dr. M. E. Pennington, *Chief*, Food Research Laboratory, U. S. Dept. Agric., Philadelphia.

### The Inspection Service of the National Canners' Assn.

By Frank Gerber, *President*, National Canners' Ass'n., Fremont, Mich.

### Recent Progress in Research Work Relative to Canned Foods

By Dr. W. D. Bigelow, *Chief Chemist*, National Canners' Assn., Washington, D. C.

Discussion by Dr. J. B. Howard, Bureau of Chemistry, U. S. D. A., Microscopist in Charge, Microchemical Laboratory, Washington, D. C.

### Publicity in Food and Drug Control

By James Foust, Dairy & Food Commission, Dept. of Agric., Harrisburg, Pa.

Discussion by Harry L. Eskew, *Food & Drug Commissioner*, Nashville, Tenn.

### Necessity for Counsel for the Food Administrative Officers, and Necessary Legal Machinery for Enforcement of Dairy, Food and Drug Laws

By F. L. Woodworth, *Food & Drug Commissioner*. Michigan.

### Beverages—Intoxicant and Non-Intoxicant

By Wm. Frear, *State Chemist*, Pennsylvania.

Discussion by E. J. Lea, *Director*, Bureau of Foods & Drugs, State Board of Health, California.

**Bottled Soda Waters**

By W. W. SKINNER, *Chemist in Charge*, Water Laboratory, Bureau Chemistry, Washington.

Discussion by W. F. HAND, *State Chemist*, Agricultural College, Miss.

**Necessity for Medical Examination of Employees of Food Manufacturing, Storing, and Dispensing Establishments**

By DR. R. S. COPELAND, *Commissioner of Health*, New York.

**Food and Drug Legislation During this Year, What It Seeks to Do**

By A. M. G. SOULE, *Chief Food and Drug Inspector*, Maine.

Discussion by E. L. BARNHOUSE, *Food & Drug Commissioner*, Missouri.

**Duties of a State Bureau of Markets.**

By GUY C. SMITH, *Director*, Pennsylvania Bureau of Markets, Harrisburg, Pa.

**New York Food and Market Control.**

By DR. EUGENE H. PORTER, *Commissioner of Foods & Markets*, State of New York, Albany, N. Y.

**Artificial Coloring in Foods**

By JAMES SORENSON, *Dairy & Food Commissioner*, Minnesota.

Discussion by THOMAS HOLT, *Dairy & Food Commissioner*, Connecticut.

**Effect of the National Food Law Enforcement on the Efficiency of the State Department Control**

By GUY G. FRARY, *Food & Drug Commissioner*, South Dakota.

Discussion by W. B. BARNEY, *Dairy & Food Commissioner*, Iowa.

**Existing False Branding and Advertising Laws in Relation to the Food and Drug Control, and How to Make Them Effective**

By LUCIUS P. BROWN, *Director*, Food Bureau, Dept. of Health, New York City.

**Municipal Food and Drug Control, Its Function and Scope**

By DR. F. C. BLANCK, *Food and Drug Commissioner* of Maryland.

Discussion by W. W. MACDONELL, *City Health Officer*, Jacksonville, Fla.

**State Food and Drug Control**

By DR. E. F. LADD, *Food Commissioner* of North Dakota.

Discussion by W. G. TICE, *Chief Bureau of Foods & Drugs*, Dept. of Health, New Jersey.

**Economy of Distribution**

By ROY C. POTTS, *Specialist in Marketing Dairy Products*, U. S. Dept. of Agriculture, Washington, D. C.

**Important Lessons Taught by Court Decisions Relative to Enforcement of the Food and Drug Law.**

By GEORGE L. FLANDERS, *Counsellor*, Dept. Foods & Markets, Albany, N. Y.

# The Times Demand Greater Efforts to Preserve Food

ONE has only to read the daily papers and the weekly and monthly magazines to be impressed with the fact that the whole world has arrived at a very critical stage in the matter of food. The conditions which face the people of this country are duplicated, in many cases to an exaggerated degree, in practically every other civilized country of the world. The great difference between the conditions here and the conditions abroad is that our problem is not so much that of getting sufficient quantities of food for our own needs but of helping to satisfy the needs of the rest of the world without creating conditions of scarcity and high prices in this country that will result in practically the same evil that an actual food shortage here would bring about.

As we look over the vast resources of the world, and as we see even after several years of education in the matter of conservation, how many, many tons of food fail of being properly utilized so that the people of the world get full value of it, the fact becomes more and more evident that while much must be done in the way of increasing production, the real big problem of the day is proper conservation and use of the food that is available.

This problem is an individual one, but it is also a business and a national problem and in its solution perhaps the greatest force will be that of education, for when all of the people know fully the nutrient value of each article of the diet, when business realizes the full value of the product in which it deals and that it has the happiness and the very lives of the people within its power, and when the nation, as represented by its law makers and law enforcers, realizes the conditions as they are and gets a clear view of the remedy, then many of the wasteful practices now permitted by individuals and by large companies will be stopped.

The question is a big one and probably will take years to work out the answers and in the working out there will be much acrimonious debate as to the right of this or that industry to preserve certain practices which have become almost sacred with them, although the people in almost every other line of business may see that those practices are the cause of loss to the people as a whole even though they may produce a slightly larger temporary profit for the particular industry. Often times the practice which results in loss to the masses is not even profitable to the industry but is a relic of the way things used to be done.

Any study of the food question must take cognizance of the fact that a very large percentage of our food is harvested within a limited period of time. But humanity does not eat strictly according to the season of the year. With only a slight variation he demands about the same general diet the year around. For that reason storage and preservation of foods by various methods are necessary.

Right here we come to a phase of the food question that is bound to come into greater prominence as education advances and the causes of our present difficulties are more plainly seen. The preservation of more food must be developed by canning, dehydration or other methods, if the enormous wastes which are still in evidence at certain seasons of the year are to be obviated and humanity given the benefit of larger quantities of food.

We think of the canning of food as a highly developed industry. It is as far as the technique of the process is concerned, but there is still a great need of more canning institutions and more education to get people to eat canned foods.

Take, for instance, the situation in regard to our greatest whole food —milk.

We have one season in the year when milk is produced in greater quantities than the present normal demand can absorb. This season covers a period of time of about three months. During the rest of the year the milk supply is just about equal to the demand for a short period and actually below the demand for a longer period.

During the oversupply period many dairymen and milk dealers try desperately to keep the price of milk up and they resort to various means and practices which actually result in a wastage of food to accomplish their ends. Great surplus supplies of milk are withheld from the markets and this surplus amount is fed to stock, permitted to spoil, or some of it is skimmed of its cream for butter-making purposes and the butter placed in storage to be portioned out to humanity at other seasons of the year. But the enormous amount of skimmed milk left after this has been done is fed to

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# Food Laws Passed by Different States

## A Review of Activities of Different State Legislatures at Their Last Sessions

### Activity of Illinois Legislature

### John B. Newman, Commissioner

FROM the facts gathered at the close of the Illinois' Legislature one cannot help but agree that some very effective and good bills have been passed. Mr. John B. Newman, Food and Dairy Commissioner of Illinois has been working hard to secure the passage of these bills and it is a matter of gratification to be so splendidly backed up by the legislation and so progressive a governor as Governor Lowden. The Illinois Legislature has increased the duties of the Illinois Foods and Dairies by passing and giving to this division for enforcement, several good laws.

### Egg Law

Among these laws is the amended uniform egg law, which makes the candling of eggs mandatory.

### Licensing Ice Cream Makers and Retailers

Another law of vital interest to the public is an amendment to the food act which provides for licensing of all manufacturers and dealers of Ice Cream and it provides that this license shall not be issued until the Ice Cream factory or the retail shop serving ice cream has passed the inspection under the Illinois Sanitary Food Act. The Illinois Ice Cream Manufacturers' license is $10.00 and the retailers $1.00.

### Commission Merchants' Bill

Another and perhaps the most important food bill of this year's legislation was passed and is known as a Commission Merchants bill, putting all receivers on commission of the following named products, including agriculture, horticulture, floriculture, vegetable and fruit products, poultry, wool, feathers, fur, hide, eggs, dairy products, nuts and honey under license to this division of $10.00 each. They must further file a bond of $2,000 to this division for the faithful performance of their duties. This bill provides that any shipper on commission of any of the above named products who is dissatisfied with the returns received, whether it be as to price of the products that were reported as having been sold, the reported grade or quality of goods at time sold and count or weight or the promptness of the return, may make a complaint to this division. Upon receipt of the complainant's plea this division investigates. If found the complainant is justified the division determines the amount due him and recommends the receiver to settle. Should he settle this ends the dispute. If however, he does not, the division writes up the evidence and their findings and returns them to the complainant and they are accepted as prima facie of evidence in a suit filed by him for recovery under the bond and this division may revoke the license. This is a very comprehensive bill. There has been great abuse in this line and this bill should correct the evils. It is a bill that is wanted by the shippers on commission and is welcomed by the honest commission merchant. It will drive the crook from the business which is a benefit not only to the shippers, but to the honest element in the trade.

### The Personnel of the Illinois Division

The legislature in its appropriation act gave to the division for the enforcement of these added laws, twenty-one additional inspectors. The division also received an additional assistant clerk to be known as the license clerk. This gives the division of American Food, Dairy and Drug Officials thirty-nine inspectors to handle the various laws and a total of sixty-one persons in the division. It might be well to mention right here that Illinois has a very satisfactory method of compensating inspectors. The inspectors start at $1,200 a year and get a raise each year of $100, up to $2,400. This puts a premium on continued service which Mr. Newman states has worked out very satisfactory. Every one in the Illinois division is under civil service with the exception of the Commissioner himself. The division was granted another chemist and another bacteriologist. Mr. Newman was more interested in the ability through the license of the various bills to be able to secure the names and addresses of the people involved, than he was in the fees. Also he is glad to know that he has the privilege to revoke licenses and by that means correct some conditions immediately. The salary of the State Analyst was increased to $3,000, this being the only increase in remuneration of any of the force.

Beside the above pure food laws other bills under which the division operates are the sanitary food laws, oleomargarine law, pure paint and oil act, stock, food and fertilizer act, cold storage good egg law and immature veal act.

It is interesting to note that in the ten years Mr. Newman has been in office he has seen his division grow from twenty-one to a force of sixty-one. It it also interesting that the amount of fees and fines collected during the past years, deducted from the money appropriated for operating the department, brought down the net cost to two-thirds of one cent per person in the State of Illinois for their protection under these laws. It might also be mentioned that it is through the progressiveness of Governor Lowden that these pure food bills, particularly the commission merchants bill was passed, same having a far reaching effect in the elimination of speculation and hoarding.

### NEW YORK

### By Dr. E. H. Porter, Commissioner

The only change which is to be reported for New York State is a law whereby dealers are required to buy milk from producers on the basis of butter fat content.

Also all bread to be manufactured in a standardized loaf and when sold as wrapped bread must have the net weight printed on the wrapper.

### MINNESOTA

### By James Sorenson, Commissioner

The most important act of the Minnesota Legislature of interest to the Dairy and Food Commissioner was the feeding stuff control law which was an act to prevent fraud and deception in the manufacture and sale of concentrated commercial feeding stuffs and labeling thereof and repealing chapter 383 of the General Laws of Minnesota, 1907.

The law states that before any concentrated feeding stuff is sold, offered or exposed for sale in Minnesota the manufacturer shall file with the Dairy and Food Commissioner of the State a statement that such feeding stuff shall be registered and sworn to of the name of the manufacturer and location, brand, ingredients and a minimum percentage of crude fat and crude protein, allowing one per cent of nitrogen to equal 6.25 per cent of protein and a maximum percentage of crude fibre which the manufacturer guarantees should contain. In this connection rigid requirements are made regarding the making and selling, so that there is no possible opportunity for deception. Any person or company failing to comply with these laws as to labeling, making and marketing will be subject to a fine of $50.00.

## ALABAMA

### By J. M. Moore, Supervisor of Division

During the past session of the legislature which adjourned in February there was only one act passed that affects the Food Laws in the State of Alabama. This is an act known as the Commercial Feeding Stuffs Act. Sections No. 9 and 18 of this act affecting the Food and Drug Act indirectly and in a very material way in that the laboratory will receive five to seven thousand dollars for the analytical work required under the Commercial Feed Stuffs Act and the Food and Drug Act in that much needed clerical assistance is provided for. Heretofore the laboratory received less than one thousand dollars for this specific work, the work being done under the supervision of the state chemist.

The legislature is now again in session, convening July 8th. Report of same will be made later.

## NORTH CAROLINA

### By W. A. Graham, Commissioner

The only legislation of interest to Dairy and Food Commissioners passed by the recent North Carolina Legislature is an act known as the Bottling Plant Inspection which merely supplements the State Food Law, though not as an amendment to that law, but as an independent act.

This act provides for the inspection of botting plants where soft drinks are manufactured, prepared or bottled.

Another act was that no commercial disinfectants should be sold in South Carolina, unless it is plainly stamped on the container the coefficient strength as compared with pure phenol.

## VERMONT

### By Chas. F. Dalton, Secretary

Mr. Dalton reports that there are no new bills relating to the food question passed by the last Vermont Legislation. Previous legislation had a number of changes and this year it seems as though there were no urgent changes necessary.

## MASSACHUSETTS

### By H. C. Lythgoe, Director

The General Acts of 1919 provided that members of the Boards of Health acting as inspectors of slaughtering shall be subject to the same penalties for misbehavior which would have accrued to the inspector of slaughtering, provided the inspection is not carried out as per regulations of the State Department of Health.

The General Acts of 1919 also provided an amendment to the cold storage law, providing a penalty for keeping goods in storage after the State Department of Health has declared them to be diseased, tainted or otherwise unwholesome. These are the only laws passed this year affecting the food laws.

## PENNSYLVANIA

### By James Foust, Commissioner

Several bills have been passed at the last legislation among which were the following. An act providing for the protection of public health and the prevention of fraud and deception by prohibiting the sale of adulterated and deleterious sausage defining sausage and prescribing the penalty for the violation thereof.

Another act is one relating to eggs prohibiting the sale with intent to sell eggs as fresh that are not or branding or marking eggs as being fresh that are not fresh. The proof of their freshness is in the hands of the Commissioner and may appear upon proper test.

Another act is defining cold storage and regulating time of storage of certain articles of food and providing penalties for the violation of the provisions of this act. It also provides for licensing cold storage warehouses and inspection as to sanitary condition, equipment, etc. Reference is also made to the condition of food permissible to store in cold storage, also the stamping and tagging of containers in which food stuffs are packed, with the month and year when articles were stored, etc. A limit of twelve months is placed on foods in cold storage as can only be permitted to a longer period only by the consent of the commissioner. It also clearly defines when food is cold storage and when it is not, by stating that any food stored over thirty days either within or without the state is considered cold storage goods and must be so marked.

Another act is for the protection of public health by prohibiting the sale of eggs unfit for food and prohibiting the use of such eggs in food product with proper penalty provided for the violation thereof and ample provision for the enforcement.

Another act relates to the reorganization of agriculture, creating bureaus therein and providing for the administration thereof.

Another act relates to non-alcoholic drinks, defining same and prohibiting the manufacture and sale of any adulterated or misbranded nonalcoholic drinks for the valuation thereof and providing for the enforcement thereof.

## WYOMING

### By E. S. Greenbaum, Commissioner

The fifteenth legislation of Wyoming passed two laws affecting the Dairy and Food Division, same being the Gasoline Law which was an amendment to a previous gasoline law and a meat peddlers law. These are described as follows:

Gasoline Law. It is lawful to sell gasoline of the following specifications: It shall show not less than ten per cent (10%) distilling at one hundred and seventy degrees (170°) Fehrenheit, nor less than fifty per cent (50%) distilling at two hundred and eighty degrees (280°) Fehrenheit, and not less than ninety per cent (90%) distilling at four hundred and twenty-five degrees (425°) Fehrenheit and the dry point shall not exceed the actual ninety per cent (90%) reading by more than one hundred degrees (100°) Fehrenheit; it shall not show any gaps during the distillation. This gasoline will be known as "Gasoline Below Test." This law went into effect February 27, 1919.

Meat Peddler Law. The Meat Peddler Law requires that every person who peddles or hawks fresh meat must procure a license to do so from the Dairy, Food and Oil Commissioner. In order to procure a license it is necessary that the peddler's slaughter place be inspected and that his methods of slaughtering, dressing, conveying and handling his meat shall meet the requirements of the Sanitary Laws. This law goes into effect July 1, 1919.

## INDIANA

### By H. E. Barnard, Commissioner

Indiana passed several very important bills which are briefly described as follows: A Bill for an Act entitled an Act to require an analysis of public drinking water, bottled water and mineral water, furnished, supplied or offered for sale for human consumption: providing for the submission of samples, condemnation of unfit water, the collection of funds to cover the cost involved and prescribing penalties for the violation thereof.

Another bill was an act regulating the sanitary conditions of bakeries, prescribing conditions connected with the manufacture and sale of bakery products and fixing penalties for violation of the provisions thereof.

## KENTUCKY

### By J. O. La Bach

The old Food and Drug Act of the state was put in the hands of the State Board of Health for its administration, they having charge of the inspection also. The Experiment Station does all the laboratory work for the State Board, epidemiology, pathology, food and drug, sanitation, etc.

The Board of Health Law of 1918 is quite a voluminous law, and is not in print as yet except in the Statutes of 1918.

The Experiment Station no longer has charge of the inspection of the Food and Drug Act or any other act, so we have no inspectors. The State Board in addition to it's regular board work has charge of the hotel inspection, food and drug, tuberculosis survey, hospitals, etc.

## NEBRASKA

### Leo Stuhr, Commissioner

There were no changes made in our food law.

In the oleomargarine law the retail dealers' license was reduced from $5.00 to $1.00 per year.

A new dairy law was also enacted which provides for standard glassware which is standardized by the Dairy Department of the University School of Agriculture and sold by the Food, Drug, Dairy and Oil Commission to the dairy interests. This bill also provides as a new feature the licensing of milk men, the fee charged for such license being $1.00 per year. It also provides that milk sold by these milk men must be from a tested herd or pasteurized before being offered for sale.

These are the most important changes as affecting any form of food production.

## IDAHO

### J. K. White, Commissioner

Complete reorganization of Idaho's scheme of state government has placed the administration of all food and drug inspection under the direction of a commissioner of public welfare who also has jurisdiction over the state chemical and bacteriological laboratories, the bureau of vital statistics and all of the functions previously exercised by the State Board of Health. Two inspectors, one of whom will work in northern Idaho and the other in the southern part of the state, recently have begun their activities.

J. K. White, former Idaho dairy, food and sanitary inspector, has been made head of the state's department of public welfare.

Vigorous clean-up drives already have been launched in virtually all of the larger Idaho towns. If Mr. White's campaign is carried to a successful conclusion Idaho will have been made a flyless state before the middle of the summer.

## OHIO

### By Thos. C. Gault, Commissioner

Ohio has passed bottlers licenses law requiring $50.00 license fee for all manufacturers of soft drinks. Sanitary conditions and label laws to be complied with before manufacturer can secure license. This same bill provides for the licensing of extract and syrup manufacturers who sell flavoring products to be used in the manufacturing of soft drinks. Each flavoring or syrup manufacturer are to pay the sum of $5.00 as a license fee for his factory. Failure to comply with requirements of this law may result in a revocation or suspension of said license.

Canning factories are licensed under another provision requiring license fee of $15.00 with provision that license be suspended in case of failure to comply with the provision of the statute.

A bill pertaining to labeling of extracts was passed repealing a part of our present law, which provides that extracts or flavors for which no standard exists must contain formula in terms of 100%.

We have had passed a Weights and Measures Bill, which provides for practically the same requirements in the marking of packages as is required of the Federal law, and further requires that any article or commodity packed and sold by weight, shall be sold by net weight only and no wood paper, burlap, cord or other substance used for wrapping of packages shall be included as part of the weight of the commodity sold.

In connection with the Bureau of Markets, we have had passed a bill standardizing hampers and baskets in which fruit and vegetables may be sold. This is the extent of the legislation, which directly applies to this department.

## COLORADO

### By Wilber F. Cannon, Commissioner

The legislation enacted by the Colorado Legislature pertaining to foods or drugs, was Senate Bill No. 21, pertaining to the Dairy Department. It simply had reference to the increase in the number of employes and the increase in their salaries.

Also House Bill No. 304 which fixed the standard for some dairy products as follows:

Section 5: Butter is the product made by gathering, in any manner, the fat of fresh or ripened milk or cream into a mass, and it shall be unlawful for butter to contain less than eighty (80) per cent of butter fat or more than sixteen (16) per cent of water, or such per cent as shall be established by the Department of Agriculture of the United States; provided that the amount of butter fat or water in the product of any one manufacturer, or in any given quantity of butter, shall be determined as hereinafter provided with reference to renovated or process butter. Butter may contain a harmless vegetable coloring matter.

Renovated or process butter is the product made by melting butter and reworking without the addition or use of chemicals or any substance except milk, cream or salt, and it shall be unlawful for any such renovated or process butter to contain less than eighty (80) per cent of butter fat or more than sixteen (16) per cent of water, or such test as shall be established by the Department of Agriculture of the United States; provided that the amount of butter fat or water in the product of any one manufacturer, or in any given quantity of butter, renovated or process butter shall be ascertained in the following manner, to-wit: Five samples shall be taken from five different packages of any one manufacturer, or from any tub or churning of butter, and a careful analysis made by the official method adopted by the Association of Agriculture chemists. The samples herein mentioned shall be taken in duplicate and one each shall be delivered to the manufacturer of the butter so sampled. If this analysis of butter or process butter shall show less than eighty (80) per cent of butter fat or more than sixteen (16) per cent of water, the butter or process butter thus analyzed is defined to be adulterated and shall be condemned by the Commissioner. Renovated or process butter may contain a harmless vegetable coloring matter. All such butter shall be plainly stamped "Renovated Butter," or "Process Butter," in such manner as will advise the purchaser of its true character, and the State Dairy Commissioner shall prescribe rules for the labeling of such products in a manner to advise the purchaser. Ice cream is the frozen product made from cream and sugar with or without flavoring, and it shall be unlawful for any person, firm or corporation to manufacture, handle or offer for sale, ice cream containing less than ten (10) per cent (reduced from old standard of 12-14) butter fat. The use of eggs, gelatine and vegetable gums is not forbidden, but must not be used to conceal an inferior product."

Also House Bill No. 506 pertaining to the marketing of cantaloupes and melons provides an increase in salary of the State Melon Inspector and his deputies and fixing more definitely the rules pertaining to the marketing of unripe, over-ripe, immature or unfit cantaloupes or other melons within the state.

### CONNECTICUT

### Thomas Holt, Commissioner

Heretofore there has been no definition of ice cream whatever. This law provides for 8% butter fat, or where nuts or fruit are used it may be as low as 6%. While this is not as high as we hoped it might be, it is probably a very good start in the right direction.

We have also secured the passage of a bill to license milk dealers requiring them to show that they are financially able to meet their obligations, or furnish a bond to safeguard the producer from whom they purchase.

# Food Manufacturers Should Have Government Protection

WE are getting quite a number of angles to this subject from our constituency. Every one in the food industry seems to think there is great need for standardizing state laws governing the labeling and packing of goods sold in different states. We quote some of this correspondence:

The subject, "Food Manufacturers Should Have Governmental Protection," appearing in a recent issue is one of the most vital importance to every manufacturer of food products, and to every grocery jobber doing an interstate business. The multiplicity of conflicting state laws and rulings governing the labeling of food products threatens to become a burden upon commerce between the states which is inhibited by the Federal Constitution. Under the guise of the exercise of police power, vexatious restrictions are being established in many states which seriously hamper the rapid development of the resources of the country. Increased production of foods, and improved and more efficient methods of preservation and packing, together with the utmost freedom of movement to localities of heaviest consumption have been most important factors in the prosperity and well being of the United States. Without the necessary freedom of access to consuming markets, the incentive to improved methods and increased production will be essentially destroyed and no greater impediment to access to markets has been devised than is offered by the threat of the enforcement of unjust and unnecessary labeling provisions sought to be established by freak laws and freak rulings in various states.

A tax upon interstate commerce would be instantly recognized and repudiated as a "burden" upon commerce between the states. The unjust exercise of an alleged police power is a more insidious and far more objectionable burden, which unfortunately our Federal Supreme Court failed to recognize in deciding several recent cases.

A simple, but effective, method of securing relief might be found in Congressional action defining what constitutes an original package in interstate trade. Until the recent decisions of the Supreme Court, it had generally been held that a trademarked or branded article sold in package form retained its identity as an "original package" until finally sold to the ultimate consumer, or until its seal had been broken. Under this practice, a branded food package labeled so as to comply with the National Food and Drugs Act enjoyed the protection of interstate commerce laws until it was finally sold, and many decisions exist wherein the Federal Courts refused to allow the state law to interfere with its sale. So well established was this principle that a special act of Congress, known as the Wilson Act, was considered necessary to prevent original packages of intoxicating liquors being shipped into dry territory.

Congressional action, therefore, to definitely fix the status of food products sold in package form as original packages in interstate trade would seem to afford protection to manufacturers and shippers interstate, and still allow full latitude for local legislators and state officials to exercise their individual and peculiar ideas with regard to labeling at the expense of local manufacturers, so long as the latter are satisfied to submit thereto.

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"I have read with a great deal of interest, the major portion of the contents of your June issue. I was particularly pleased with the editorial in reference to our proposed action relative to bringing about the enactment of a national law that will clear up the unsatisfactory condition now existing on account of the lack of uniformity between the national and the State Pure Food Laws.

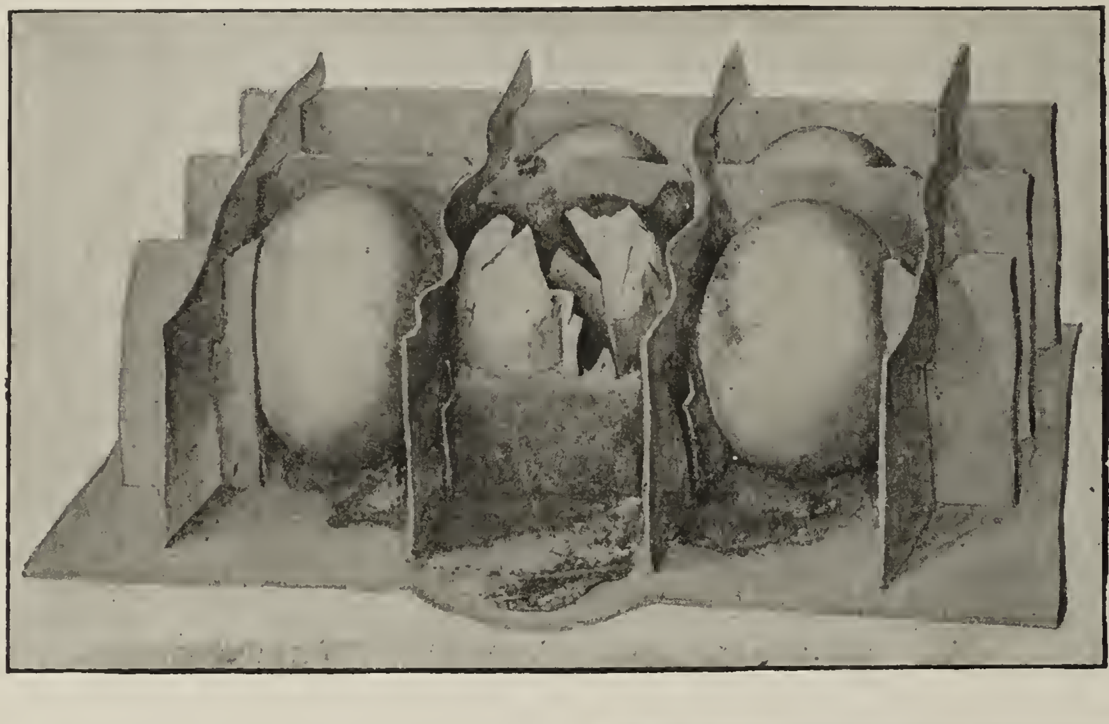
"Your co-operation in this matter is sincerely appreciated and I am sure that your editorial will be of considerable benefit by calling the attention of your readers to this much-needed reform."

# Commercial Preservation of Eggs by Cold Storage

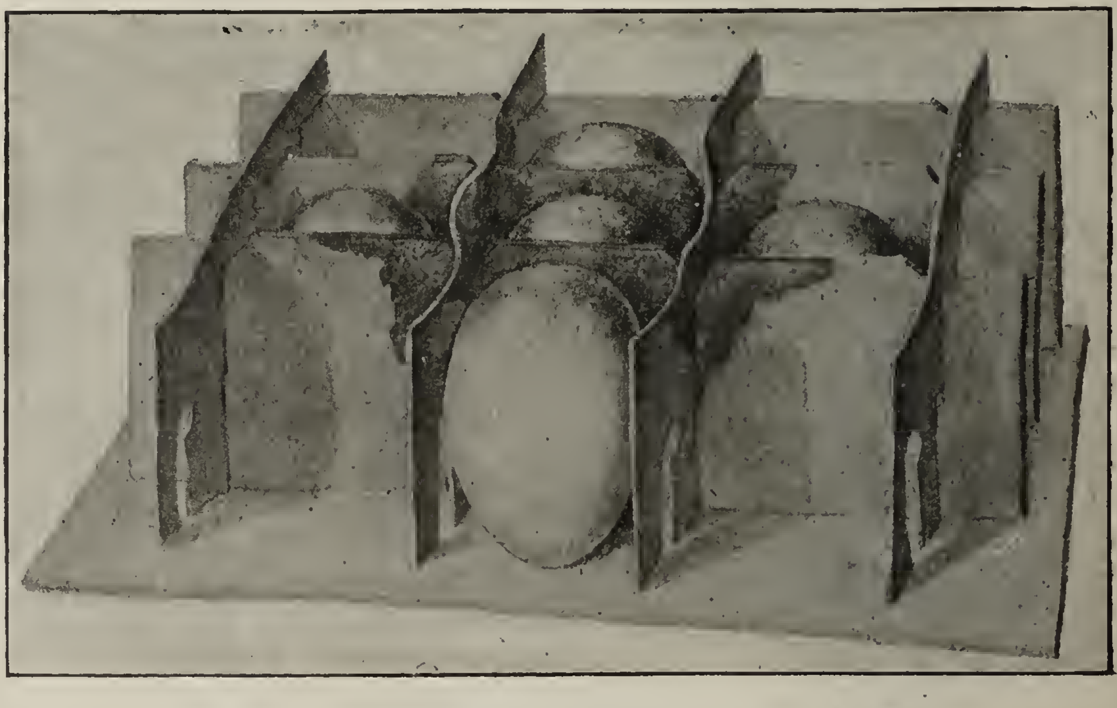
### *By M. K. Jenkins, Assistant Bacteriologist*

**Prepared under the direction of M. E. Pennington, Chief, Food Research Laboratory, Dept. of Agriculture, Washington, D. C.**

The preservation of eggs by means of cold renders one of the most important of the perishable foods available at all times. According to Holmes, about 50 per cent of the egg crop is produced during the months of March, April, May and June, and 86 per cent of the eggs held in storage are stored in March, April and May. During these cool months the eggs are the freshest and most desirable for storing. According to a statement issued by the Bureau of Markets, April 15, 1918, 478 warehouses, which report holdings of eggs in cold storage, are fairly well distributed over the United States. The March 11, 1918, summary report, issued by the Bureau of Markets, shows that a total of 6,595,850 30-dozen cases, valued at $70,487,212, were stored in 396 houses during the season of 1917-18. These figures, although lower than the actual amounts, due, as mentioned in the reports, to the failure of a few houses to forward statements of their holdings, give a fair approximation of the extent and value of the business.



The deliveries in appreciable quantities of eggs from cold storage begin in August, continue in increasing amounts during the fall and early winter months, and gradually decrease from this period until the first of March, when there are but few, or practically no eggs left in storage in normal seasons. For example, during the season of 1916-17 57.7 per cent of the holdings were left in storage on November 1, 34.2 per cent on December 1, 13.8 per cent on January 1, 2.1 per cent on February 1, and 0.1 per cent on March 1. These statistics agree with those collected by Holmes several years earlier. The increase in consumption of cold storage eggs during the winter corresponds to the marked decline in egg production during that time.



Contamination of neighboring eggs by molding leaker. Top, upper layer; below, lower layer.

## Purpose of the Investigation

Although a number of publications discuss the losses in eggs which follow the routine course of marketing without the intervention of cold storage, comparatively few data, showing the changes and losses in different grades of eggs handled according to commercial usages during various holding periods in cold storage, are available. This investigation was made primarily to determine the efficiency of the preservation of commercial eggs by cold storage. The following phases of the problem were studied:

(1) The relative keeping quality of fresh, heated, sound, dirty, and cracked eggs.

(3) The relation of the month of storage to preservation.

(3) Efficiency of the commercial grading of eggs for cold storage.

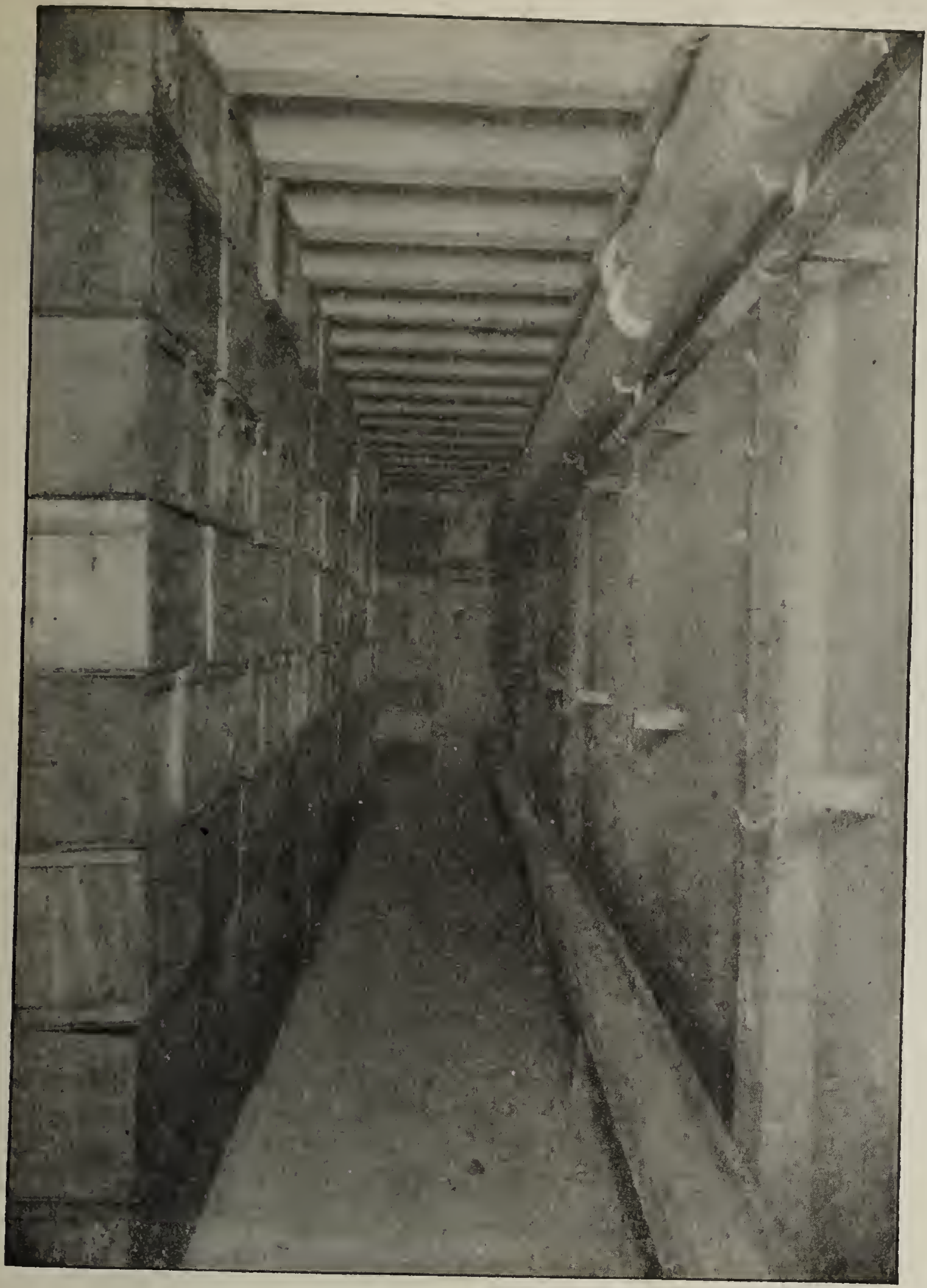
(4) Analysis of bad eggs developing in commercially packed eggs during storage.

(5) Relation of care in initial grading to the development of bad eggs during storage.

(6) Rate of evaporation of moisture from eggs.

(7) Rate of absorption of moisture by case and fillers.

(8) Physical and chemical changes in eggs during storage.



Cold-Storage Room, Showing Brine Coils and Stacks of Storage-Packed Eggs. Capacity, 4,000 Cases, or 1,440,000 Eggs

(9) Absorption of foreign flavors during storage.

## General Plan of Investigation

The eggs used in these observations were produced in the Corn Belt States of the Middle West, with the exception of a few lots which came from Kentucky. They were shipped East in refrigerator cars and were from three to seven days en route. As soon as received they were transferred to a commission house equipped with chill rooms, a candling and breaking room, all of which were refrigerated. Here the observations were made before the eggs were stored, as well as on removal from storage at various intervals during the storage period. The examination of the different classes of eggs to determine the relative deterioration consisted in determining the quality of the eggs in the shell by candling and out of the shell by appearance, odor, and chemical analysis. It was necessary to grade the eggs after they were opened because there are certain classes of bad eggs that can not be recognized and others which are frequently missed by grading in the shell. The method of separating the edible and inedible eggs by candling and breaking was the same as that followed commercially in up-to-date candling and breaking rooms. The inedible eggs detected by candling correspond to those found by the dealers in grading eggs for market, and the bad eggs detected by breaking represent those that would be found when the eggs were opened by the consumer. Samples for laboratory examination were taken from the liquid product obtained on mixing the eggs graded as edible. Observations were made on 9 lots which were received and stored in New York City, and on 12 lots delivered to and stored in Philadelphia. The eggs were stored at a temperature of from 30° to 33° F. in rooms used commercially for the cold storage of eggs in the shell. During this investigation 841 30-dozen cases of eggs of varying grades were examined before and after storing.

## Effect of Condition of shell Upon Preservation

The losses in commercial fresh eggs with clean, sound shells were found to be negligible during a storage period of 11 months. In the experiment the bad eggs detected by candling and breaking did not amount to more than five eggs per case at any time during the storage period. The principal types of bad eggs found were green whites, crusted yolks, moldy eggs, mixed rots, and white rots. The first two types mentioned are characteristic of washed eggs after storing. Unfortunately it is not possible to detect all washed eggs by inspection of the shell before storing.

If the shell of a fresh egg is dirty its liability to spoilage during holding in cold storage is markedly increased. A typical lot stored in April showed on monthly withdrawals from storage from September to March, inclusive, from 12 to 30 bad eggs per case by candling and from 10.5 to 29 additional by breaking. Among commercial dirty eggs are found eggs soiled with feces, mud, and blood, as well as stained eggs showing evidence of having been washed or having come in contact with the wet, muddy feet of hens or wet nests. Bacteria and molds can penetrate wet shells, even though unbroken, and cause the egg to rot. Moldy eggs, green whites, crusted yolks, mixed rots, white rots, and black rots are the principal varieties of bad eggs among dirty refrigerator eggs.

It is generally known that eggs with damaged shells will not keep in storage. The most common form of deterioration of the cracked egg is through molding, which, in stocks stored in spring, becomes pronounced in September and October, and increases throughout the storage period. The bad eggs developing in cracked eggs stored in April and May varied, as found by candling and breaking, from 44 per case in September to 144 per case in March. If the shells were dirty in addition to being cracked, the losses were greater, amounting in eggs stored in April and held until December to as high as 211 to the case.

## Relation of Quality to Preservation

The initial quality of the eggs influences to a large extent their preservation by cold storage. Stale,

Grading Eggs for Cold Storage by Inspecting and Clicking the Shells

weak, and hatch-spot eggs, which are only too plentiful in eggs marketed in the summer, lose heavily after a few months holding in cold storage. In the experiment, the stale and heated eggs stored in July developed comparatively few bad eggs up to September, but from then until the end of March the loss was from 13.5 to 24 eggs per case by candling, with 9.5 to 19 additional by breaking. The number of bad eggs developing may be higher or lower than that found in this experiment, depending upon the degree of deterioration before the eggs entered storage. The most frequent types of bad eggs present in heated stock after storing are those with slightly stuck or broken-down yolks in various stages of addling.

It does not follow, however, that because many of the eggs marketed in the summer months are shrunken and heated and do not keep well in storage, the eggs as laid by the hen in the summer are not initially as good in quality as those laid in the spring. Fresh hennery eggs laid in April and July, delivered to storage within approximately 48 hours after being laid, showed a negligible loss in bad eggs, even after a long period of storage. The bad eggs present were those showing a slight breaking down of the yolk. No eggs with green whites or crusted yolks were found. Their absence was to be expected, because the natural condition of the shell had not been disturbed through soiling, washing, or contact with damp surroundings. The good results in this report show the improvement yet to be attained in the commercial marketing of summer eggs.

After holding from four to eight months stale and heated cracked eggs stored in July showed a total of 168.5 to 266 bad eggs per case. The higher loss in these eggs, in comparison with the clean, cracked fresh eggs stored in the spring, may no doubt be explained by the development of larger numbers of molds and bacteria during the warm weather before storing.

In short, these studies show that,

Current Receipts Into Storage-Packed Extra Firsts, Storage-Packed Firsts, Trade Eggs, and Cracked and Dirty Eggs for successful preservation, eggs to be stored for several months should have clean, sound shells, and be fresh in quality.

### Commercial Grading for Storage

Most of the grading of eggs for storage is done in the producing sections, although some ungraded current receipts reach the markets in the consuming centers, particularly from shippers located in the undeveloped poultry and egg sections of the country. It is generally recognized by the industry that only the best eggs should be used for storing, and that more care should be taken in the packing of eggs for storing than for direct marketing. New cases and new medium fillers (3 pounds 3 ounces per case) ordinarily are used. A very small proportion of the eggs are candled before storing, except in the summer when the production is light and the percentage stored small. The usual procedure is to sort the current receipts into various grades by clicking and inspecting the shells. From the case of current receipts the sorters take in each hand three eggs, which, by an inward movement of the index finger, they click together. A clear ring indicates whole shells; a deadened sound signifies the presence of cracked eggs. The latter are sorted into cases by themselves, as are also the small and dirty eggs. The eggs are marketed for immediate consumption, or are broken and frozen in cans to be used by bakers as needed. Sometimes a grade called "trade eggs," sold principally in southern markets, is made from the clean, small eggs. The large eggs with clean, whole shells are used in the storage-packed eggs. Usually two grades, firsts and extra firsts, are prepared. The former must weigh at least 42 pounds to the case, and the latter 44 pounds.

"Market firsts," commercially packed for storage in April, May, June and July, were studied for three consecutive seasons. The April and May commercially packed eggs showed a low number of bad eggs more uniformly during the course of the storage period than did the June and July commercial stocks. This may be accounted for by the fact that most of the spring eggs on the market are fresh, are not shrunken, and have not been exposed to high temperatures before storing. Some of the commercial summer firsts, for example, Experiments 41782, 41941, and 41787, contained no more bad eggs after storing than did the commercial spring firsts. On the other hand, Experiments 41918, 41922, and 41945 showed heavy losses, even after a comparatively short period of storage. Indeed, it would not pay to carry such low-quality eggs in storage longer than the fall months. In commercial practice very few eggs are stored in summer, and practically all are withdrawn by November or December. In fact, in the summer when the general supply is poor in quality, dealers frequently draw from the spring stock in storage to fill orders requiring eggs of good quality.

On withdrawal from storage between November and March, commercial spring and high-grade summer firsts showed usually from 12 to 18 bad eggs per case by candling, with from 2 to 6 additional by breaking. On the other hand, summer seconds and low-grade commercial summer firsts, when withdrawn from storage between November and March, ordinarily contained from 18 to 42 bad eggs per case, as determined by candling, and from 6 to 12 more as found by breaking.

Because deterioration has already begun, summer seconds should not be stored, even for short periods; they should be sold for immediate consumption or promptly broken and frozen. In short, for successful preservation in storage in the shell, eggs, like other perishable products, must initially be in prime condition.

### Condition of Commercial Packages as Stored

Most warehouses require an examination of the cases of eggs for mechanical damage before permitting them to be taken to the cold-storage rooms, the thoroughness of the examination depending upon the strictness of the management. The officials of some warehouses demand that representative portions of carload lots be inspected, while others ask that each case be examined. In some cold-storage plants the examinations are made by the employees;

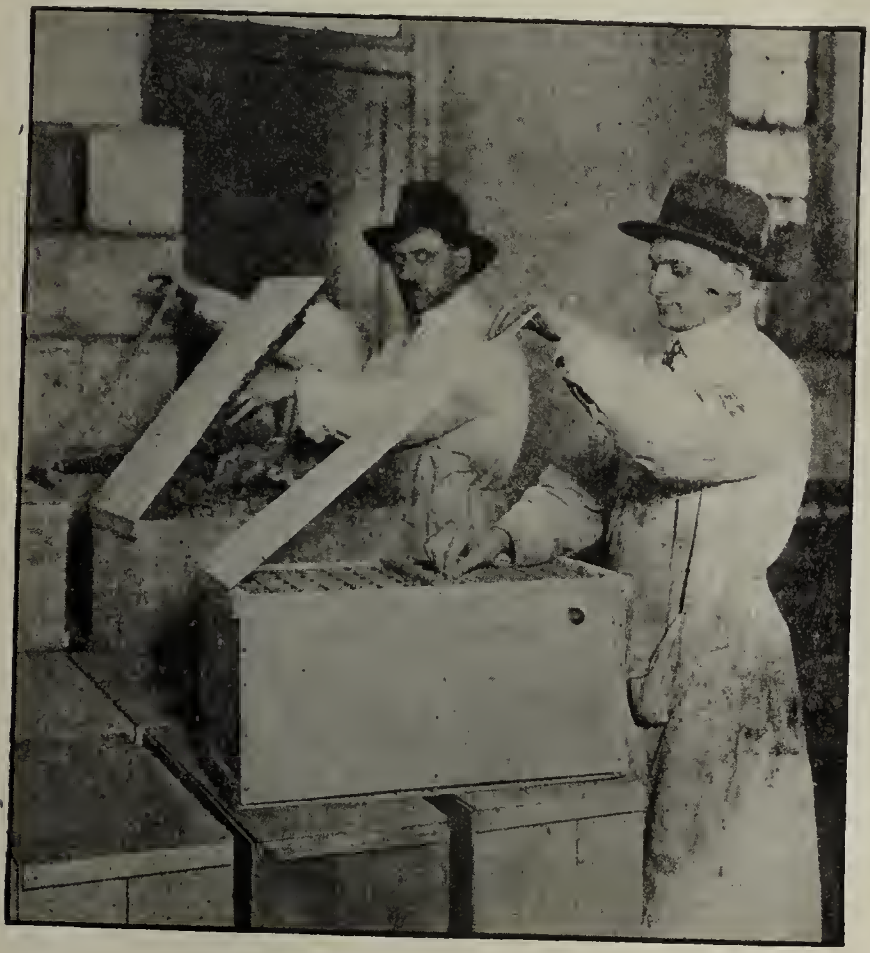


Fig. 1.—Top Filler Examined Without Removing Eggs Unless Damage is Found

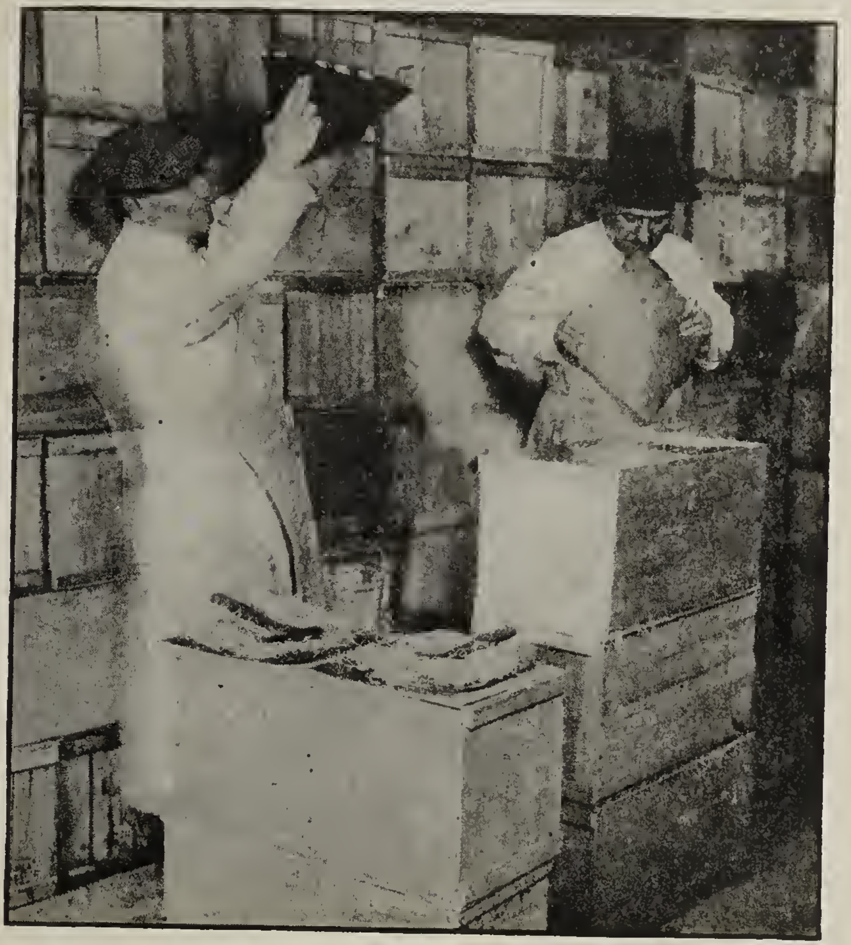


Fig. 2.—Removing Top Layers and Inspecting Upper and Lower Sides

INSPECTING STORAGE-PACKED EGGS. IF DAMAGE IS FOUND IN TOP FILLERS ALL THE LAYERS ARE REMOVED AND SOUND EGGS SUBSTITUTED FOR THE BROKEN EGGS in others, by the patrons. In the latter instance some firms exercise more care in inspection than the rulings of the warehouse require. In the warehouse where the eggs used in these investigations were stored, each patron examines his eggs and usually every case is opened. The top layers of each case are examined without being removed or they are lifted from the case and both the upper and lower sides examined. When evidences of broken eggs are found in the top fillers each layer is inspected, and all leaking eggs discovered are replaced by eggs with whole shells in dry fillers. If no breakage is found in the top layers the remaining layers are undisturbed.

These cases, then, represented the condition of commercial packages on entering storage.. The eggs were next candled to determine quality and to ascertain the number of dirty, cracked, leaking, and bad eggs included with the good, clean eggs. Representative samples were also broken to further discover the quality and to find the number of bad eggs not recognized by candling, and samples of the liquid edible product were prepared for chemical analysis.

The number of bad eggs found by candling among commercial spring firsts before storing averaged from 0.5 to 2 eggs per case, as compared with 1.5 to 10 eggs per case in the summer packed firsts. As would be expected, the initial number of bad eggs in the summer seconds was higher, averaging from 8.5 to 21.5 per case in the different lots. The bad eggs found by candling could not have been recognized by sorting, that is, by visual inspection and clicking of shells; therefore, their presence did not reflect upon the accuracy of the initial sorting, but upon the inadequacy of the system as compared with candling. The additional bad eggs found by breaking, consisting mostly of green whites, averaged from 0.5 to 4.5 eggs per case in the spring and summer supply. The condition of these eggs, not recognizable by candling, would not be discovered in the routine marketing until opened by the consumer.

The number of cracked eggs averaged from 14.5 to 29 per case in the storage packed firsts, and from 20 to 34 per case in the summer seconds. The leakers averaged from none to 3 per case in the different lots studied showing that the absence of damage in the top layers, as determined by commercial inspection, does not always indicate that there is none in the lower layers. The findings here corroborate the more extensive investigations made by Pennington, McAleer, and Greenlee.

Some lots of storage packed firsts contained but few dirty eggs; others showed an average of 30 eggs per case. The presence of dirty eggs in commercial packages may be attributed directly to oversight or carelessness in the initial sorting of the eggs for storage.

Studies were made to determine the relative number of bad eggs developing in storage from whole, cracked, and leaking eggs present in the commercial storage stocks. These observations were based on spring and summer eggs withdrawn at monthly intervals from November until March, inclusive. Three cases of each lot were examined monthly, but, for simplicity, the results for the entire period are averaged. It was observed that most of the bad eggs developing in storage packed eggs were evident by November.

As might be expected, a large portion of the cracked eggs originally present in the commercial packages spoiled during storage. Out of the average of from 15 to 19.5 cracked eggs per case present when the commercial spring firsts entered storage, from 4 to 9 bad eggs per case developed, as detected by candling, and from 0.5 to 1.5 additional per case as found by breaking. The losses were still higher in the summer packed firsts. For example, Experiment 41495 when stored contained an average of 20 cracked eggs per case, of which 8 were found to be inedible after storing. Practically all of the leaking eggs spoiled by molding.

Damaged eggs, particularly leaking eggs, in becoming moldy may contaminate neighboring eggs and cause them to spoil. When the contents of a broken egg leak out and soak into a strawboard filler, the filler usually becomes moldy, and causes eggs coming in contact with

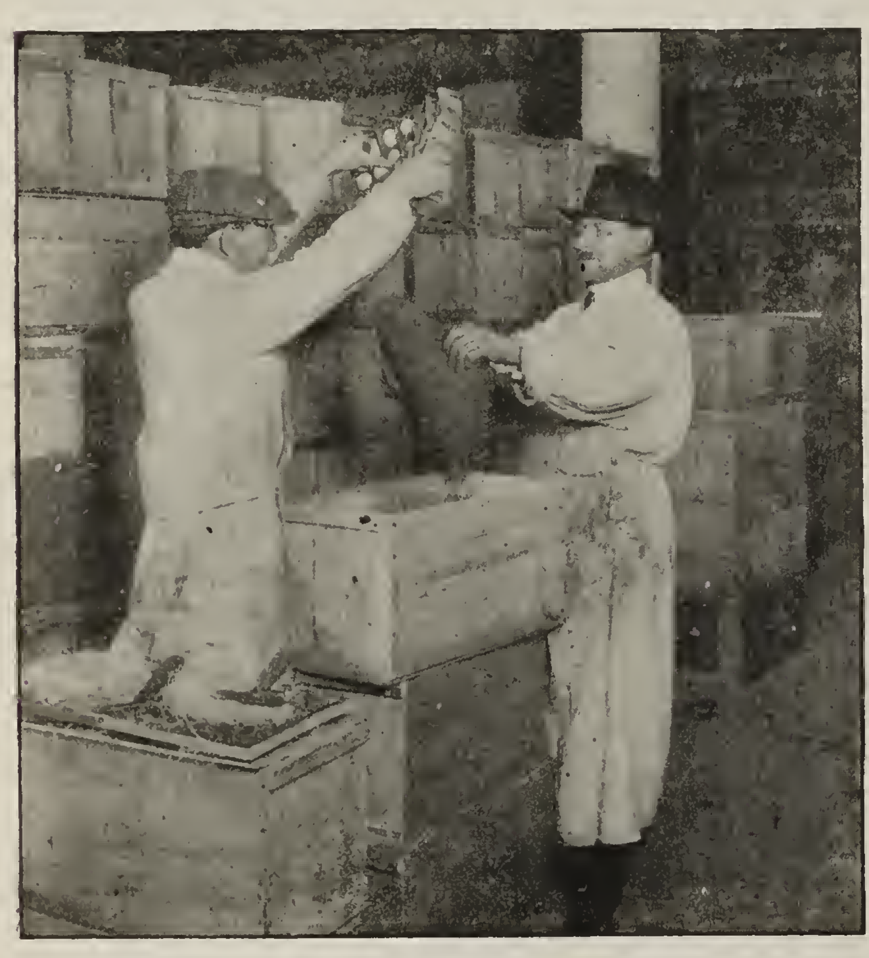


Fig. 1.—Each Worker Withdraws a Layer and Holds the Bottom in Position for the Other Worker to Inspect

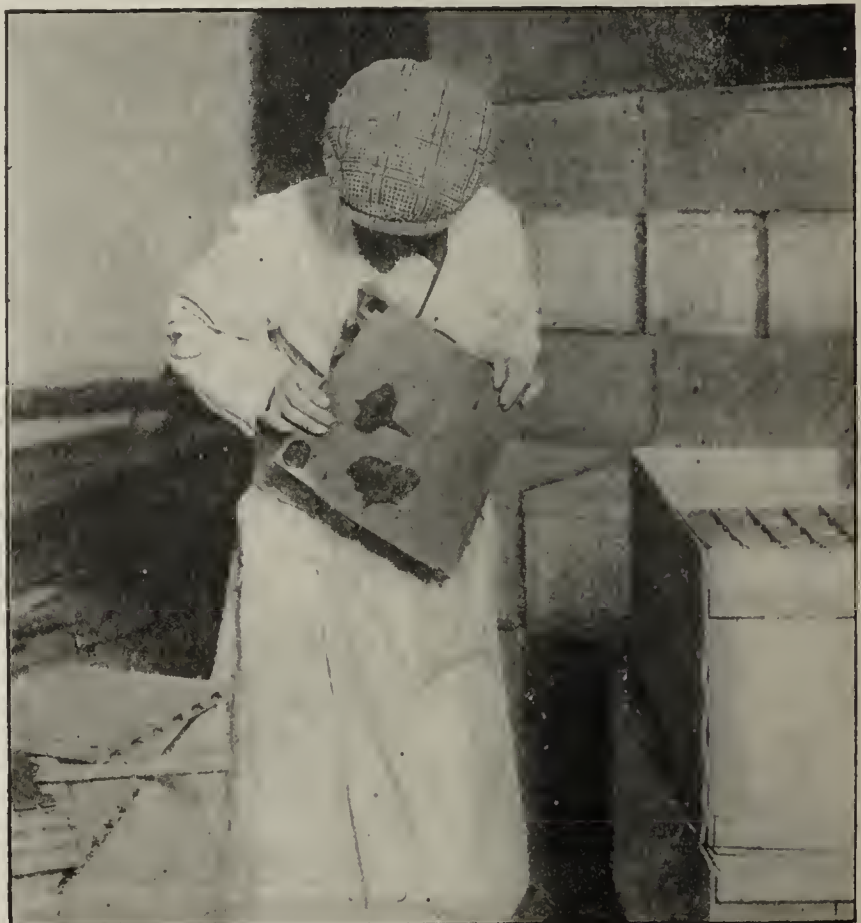


Fig. 2.—Layer of Eggs Showing Wet Spots on Flat, Due to Damaged Eggs

INSPECTING CASES OF STORAGE-PACKED EGGS. IF DAMAGE IS FOUND IN TOP FILLERS ALL LAYERS ARE REMOVED AND SOUND EGGS SUBSTITUTED FOR THOSE THAT ARE BROKEN it to mold. This contamination may extend to eggs in adjoining pockets or through flats to the eggs beneath. In the different lots of eggs studied, an average of from 1 to 4 eggs with sound shells per case was spoiled by leaking eggs.

Dirty eggs constituted but few of the bad eggs present in the commercially packed firsts. As found by candling, the bad eggs with dirty shells averaged from none to 2.5 eggs per case in the different lots examined.

The clean eggs with sound shells constituted the majority of the eggs in the commercial cold storage firsts. In the spring stocks these eggs furnished an average of from 2 to 7 bad eggs per case, as found by candling, and an average of 4 extra, by breaking. In the summer stocks they contributed an average of 4.5 to 17 bad eggs per case by candling, and 6.5 to 10.5 additional by breaking. The inedible eggs in the clean summer seconds with sound shells, as found by candling and opening, were practically the same in number as the poorer grade of summer firsts. A large proportion of the bad eggs in the spring firsts with whole shells may be attributed to the presence of eggs which at some time previous to storage had had wet shells, because of washing the eggs or for some other reason. If the dirt is left on the shells the eggs can be graded accordingly, but if washed it is not always possible to differentiate between them, with the result that washed eggs are frequenctly graded as firsts. Washed eggs do not keep as well as dirty eggs. Attempts, therefore to improve the appearance of dirty eggs by washing is a practice which can not be too strongly condemned. In eggs stored from summer production there is an additional loss due to the physical breaking down of the egg contents as a result of exposure to warm temperatures before storing.

These studies show that the following factors are responsible for the development of a large percentage of bad eggs in commercial spring firsts during storage: (1) Inaccuracies in the system of sorting eggs for storage; (2) the inadequacy of that system in determining quality and detecting bad eggs; and (3) to a lesser extent, damage during the railroad haul. The bad eggs developing during storage in the summer stocks are due to these factors, combined with a lower initial quality.

In order to determine the relation between care in initial grading and the number of bad eggs developing during storage, packages containing as far as possible only good eggs with clean whole shells were prepared from each lot of commercially packed eggs studied during the last two seasons of the investigation. To determine quality and to eliminate bad eggs, the eggs were selected by candling instead of by simply inspecting and clicking the shells.

Candling is a more accurate method for the detection of cracked eggs than is the clicking of shells, as ordinarily practiced. Enough carefully graded packages were prepared so that one case could be withdrawn monthly from storage with each three cases of corresponding commercially packed eggs. Following such a procedure, the carefully packed eggs contained an average of three cracked eggs per case after carting from the commission house to the cold storage warehouse and return. Of this number from one to two of the cracked eggs may be accounted for by handling error in putting up the eggs for storage, and the balance by damage during cartage.

In the April and May refrigerator firsts there was an average of 13.5 inedible eggs per case found by candling in the commercially packed eggs, as compared with 4 in those carefully packed. These figures are the averages of the results of monthly observations made from November to March. Figuring the value of eggs when stored in the spring of 1917 as 35.6 cents per dozen, and charging 3 cents a dozen to cover insurance, interest, and carrying cost, there was an average money loss in bad eggs in the commercially packed eggs of 43.5 cents, as compared with 13 cents per case in those carefully packed. An average of 11 cracked eggs, which were still good by candling, was found in the case of the commercially packed eggs. These, however, on account of their impaired shells, would bring one-third less on the markets than their companion eggs with good shells, making a further additional loss of 12 cents per case. The total loss, then, in the commercial stocks averages 55.5 cents per case, as compared with 13 cents in the carefully packed eggs. It costs about 5 cents more per case to grade by candling than by sorting. Even with this added expense there was a saving of 37.5 cents per case in favor of the carefully packed eggs which amounts to $140 per carload of 400 cases in spring stocks stored until after November.

It is believed with a little attention given to the checking of the accuracy of the sorting of eggs for storage, the number of cracked and dirty eggs missed could be greatly lessened without materially reducing the amount of work accomplished. In addition, since the detection of cracked eggs depends upon hearing distinctly the sound emitted on tapping the eggs together, noises in the work room should be eliminated as far as possible. Far greater efficiency, however, would be obtained by candling all eggs entering storage. Realizing the importance of having a uniformly graded product, some of the more progressive western houses make a practice of candling all eggs stored, at the same time enforcing a checking system to see that the work is accurately done. This is a big step forward, for by candling the cracked eggs can be more accurately eliminated, and low quality and bad eggs may be detected and discarded.

Such eggs, being practically free from mold after several months in storage, are an advertisement to the firm selling them, and in practice it has been found that their more uniform quality has secured for them special outlets with higher prices. According to the present system of marketing, storage packed eggs may pass through several hands before they are finally consumed, with the result that the original shipper seldom sees the condition of his goods when they are withdrawn from storage. For example, the packer in the producing section may sell to a commission man in the East, who may in turn sell to another dealer. Upon withdrawal from storage the eggs may go into another buyer's hands before they are finally graded for the retail market. In addition to buying according to shrinkage before the candle and weight, dealers in storage packed eggs should demand that the cases be practically free from cracked eggs. This factor has received too little attention in the past, taking into consideration the fact that the average of 19 cracked eggs per case as the eggs leave the shipper's hand frequently furnishes half of the bad eggs developed during storage. In the final analysis, the original packer must bear the burden of expense of the stale, dirty, cracked, leaking, and bad eggs included in the storage grade, for, in order to play safe, buyers must pay a lower price for the whole package than they would if sure of receiving cases containing only large, clean, fresh eggs with whole shells. If there is no direct market for the cracked, dirty, shrunken, and leaking eggs in the shell, their initial quality can be conserved by breaking and freezing in cans. Ordinarily there is a good market for frozen egg products of high quality.

The changes in weight of eggs, case, and fillers were studied in three different storage rooms. All the weighings were made in the room where the eggs were held, because it was found that the cases and fillers frequently gained in weight if removed to a higher temperature. A sensitive scale was used. First the gross weight was found; then the eggs were transferred to a second case, and the fillers and the case weighed. The net weight of the eggs was determined by difference. After weighing, the eggs were returned to the original cases and fillers, so that the periodical weighings during the storage period were made on the same cases, fillers, and eggs.

There was an almost regular decrease in the net weight of the eggs during the course of the storage period, amounting to an average of 4.48 ounces per case per month for eggs stored in Room 1, and 3.46 ounces per month for eggs stored in Rooms 2 and 3. In Room 1 the decrease in the gross weight of a case of eggs weighing initially 56.84 pounds gross and 45.80 pounds net was 25.29 ounces and 38.20 ounces, respectively, during a storage period of 9.2 months. In Room 2 a case of eggs weighing 57.33 pounds gross and 45.01 pounds net at the beginning of the season last 12.73 ounces gross and 26.14 ounces net after 9 months in storage. These typical results show, then that attempts to determine shrinkage of eggs by finding changes in weight of the total package alone, a procedure frequently followed commercially, give misleading figures.

The amount of moisture absorbed by the fillers and case varied in different rooms and for different cases in the same room during the storage period. Probably most of the moisture absorbed is from the water evaporating from the eggs. Cases exposed to drafts from the outside, as through the opening of doors, would condense moisture from the incoming air, but under ordinary conditions the moisture coming from this source would be small in quantity compared with that derived from the eggs. Most of the moisture was taken up by the case and fillers during the first four or five months, and from this time on the weights usually showed a slight gain or remained practically stationary. In Room 1 fillers having an initial weight of 3.61 and 3.68 pounds gained 3.99 and 4.13 ounces, respectively, after 9.2 months in storage; and in Room 2 of two sets of fillers, each weighing 3.7 pounds at the beginning, one gained 6.17 and the other 6.81 ounces in 9 months. In Room 1 cases weighing 7.74 and 8.16 pounds at the outset absorbed 4.73 and 3.10 ounces, respectively, of moisture in 9.2 months; and in Room 2 of two cases each weighing 7.98 pounds, one gained 6.70 ounces and the other 7.80 ounces of moisture during practically the same period of time.

The humidity from the beginning of the season up to September varied from 72 to 77 per cent, and from that time until the end of the season gradually increased to a maximum of 91 per cent.

In this room, as well as in the other two rooms in which observations were made on the shrinkage of eggs, calcium chlorid was used as a drying agent. All three rooms were chilled by brine pipes on the walls.

During the commercial holding of eggs in cold storage the air space increases in size because of the evaporation of moisture; the white becomes thinner and eventually loses its opalescence. After six or seven months the white usually develops a yellow tinge, which deepens with the length of storage period. The clouded appearance of the white is especially noticeable when eggs are separated in large quantities, as is done in a commercial egg-breaking room. The slightly yellow color does not destroy the beating quality of the white nor the porcelain white color of the resultant froth. The yolk membrane weakens slowly, but, if the eggs are fresh on storing, most of them can be separated, even after storage for 11 months. The separation, however, is usually not as easy as in the earlier part of the storage period. If the physical condition of the egg is weakened through being stale, or heated, or both, separation is difficult after being held in storage for only a few months.

Accompanying the evaporation of moisture from the egg, Greenlee found that there was a transfer of moisture from the white to the yolk by osmosis. For example, samples of whites and yolkes, showing 87.42 per cent and 49.15 per cent moisture, respectively, after holding in storage for 41 days, contained 85.35 per cent and 50.60 per cent, respectively, at the end of 266 days in storage.

The amount of ammoniacal nitrogen in samples of April and May storage eggs graded as edible by candling and breaking was found to be initially from 0.0012 to 0.0021 per cent on the wet basis, and to increase gradually during storage to about 0.0030 per cent in November or December, that is, the seventh or eighth month in storage, and to remain nearly stationary or even to rise slightly until the end of March, the close of the storage period. Summer eggs entering storage with the same degree of freshness as the spring eggs showed practically the same increase during the same period of holding.

Pennington, Hendrickson and collaborators found that during a storage period of six months there was no change in the dextrose in eggs, provided they were not infected with bacteria. In unpublished studies by these investigators it was found that even up to 10 months storage the dextrose content remained constant.

It has been found that under commercial conditions a characteristic unpleasant flavor, commonly termed the "cold storage taste," develops in eggs which have been held in cold storage for several months. It is especially noticeable when the eggs are soft boiled or poached. The flavor is not as marked in the white as in the yolk which contains a large percentage of fat. It is known that fats have an affinity for odors and flavors. The facts indicate that the "cold storage taste" is due to the absorption of surrounding odors. When closed the storage room itself has some odor, as have also the cases and excelsior, but the strawboard fillers and flats possess an odor more nearly resembling that found in storage eggs. The fillers and flats become slightly damp in storage, due to the absorption of moisture evaporated from the eggs and the air of the room, and acquire a stronger odor than when dry. Experiments show that when eggs are protected from air by immersion in a preserving liquid and held in cold storage, the typical "cold storage taste" does not develop. This shows almost conclusively that the "storage taste" is a foreign flavor absorbed by the eggs.

Dirty and cracked eggs absorb this flavor more quickly and to a greater extent than do eggs with clean shells.

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## A Specialty of Ireland

From a speech by the Lord Mayor of Dublin: "That would be a crying evil, to leave the poor people in the city without milk. It would be a wise thing if the Corporation would take the bull by the horns and deal with the matter."

# Absurdity of Classing Flavoring Extract as a Beverage

IN bringing about prohibition of intoxicating liquor we presume it is only natural that a number of legitimate industries would be caught between the mill stones. Flavoring extracts, though admittedly a household necessity, has been one product upon which there has been a great deal of thought and debate, and even now its position is not clearly and satisfactorily defined. The whole nation seems to be interested as to whether or not flavoring extracts will be used as an intoxicating drink when no alcohol in any other form is to be had. It is the opinion that the prohibitionists have the idea that flavoring extracts have been, are, and will continue to a greater extent to be used for beverage purposes in unlimited quantities and with this belief they have been firm in holding that nothing containing alcohol should be sold in this country for any purpose.

While this has been the attitude for some time, we are pleased with a letter received July 16th from Edwin C. Dinwiddie, Legislative Superintendent of the Anti-Saloon League of America, from which we quote as follows:

*"I am glad to say that as a result of all these various negotiations, I feel confident that a solution which is practically satisfactory—though it probably is not exactly of the nature all the factors would prefer—has been arrived at and I think will be embodied in the pending legislation. This is in direct accord with my own views in the matter, because we have at all times desired to go the limit in seeing that no legitimate interests are interfered with, at the same time making all necessary provisions for the effective enforcement of the prohibitory law. I incline to the belief that we are going to be able to pass a measure that will make possible a good enforcement of the law and at the same time not injure any proper industry using alcohol for legitimate purposes."*

It would seem from this that the flavoring extract interests now have little to fear in the way of opposition to their industry from the prohibitionists. However, there is another element, the "wets," who are to be considered. Basing their opposition to any leniency on making the country bone dry they feel that the more drastic the law is made the more chance there will be of having it become so unpopular that it will be repealed. While in the judgment of most thinking men this is a futile hope, yet it makes amendments of the prohibition bill much harder to secure.

There are isolated cases on record of where flavoring extracts have been used as a drink by igorant miners and morons, but few have taken the trouble to find out what the effects of drinking flavoring extracts has been upon those who did so. Conclusive evidence has been established that few who have ever taken flavoring extract as a beverage have cared to repeat it, for the result is a nauseating sickness frequently lasting several days.

Of course, all flavoring extracts are potable. The definition of potable being, "suitable for drinking, said particularly of water-liquid-flowing" (noun) "something drinkable;" Drinkable means: "That may be drunk, or fit to be drunk"; Drink means, "any liquid that may be taken into the stomach."

Flavoring extracts are manufactured from essential oils such as lemon oil, orange oil, etc., or from aromatic and odoriferous plants such as the vanilla bean, the tonka bean, etc. These extracts consist of a solution of flavoring principles of the fruits, or plants in ethyl alcohol. The amount of alcohol necessary to hold the flavoring solution varies according to the kind of extract.

For example, it requires about 85% of alcohol to hold in solution the 5% of lemon oil, which must be contained in a lemon extract in order to have it legal under the standards that have been provided for the enforcement of the National Food Law, and which standards are also effective under the Food Laws of practically all of the states.

In the case of vanilla extract, as another example, it requires about 50% of alcohol to hold in solution the amount of the flavoring constituents of the vanilla bean, that a vanilla extract must contain in order to be legal under the food laws referred to.

Now, while it is true that the amount of flavoring ingredients contained in these flavoring extracts renders them disagreeable to the taste and not suitable for general use as beverages, at the same time, they are "non potable;" on the contrary, they are "potable" under the dictionary definition of the word "potable" as set forth above.

When the fact is considered that the ingredients of flavoring extracts are all wholesome ingredients, and must be pure and wholesome ingredients under the various food laws of the nation, it is easy to see that they are not "non-potable" so far as being unwholesome or dangerous to health or productive of disturbances to the human system are concerned. The only thing that stands in the way of their being "potable" is their disagreeable taste when taken in concentrated form and in quantity. The ordinary normal individual would not desire to drink flavoring extracts for intoxicating purposes, but that is beside the issue as to whether they are potable or not. Any ordinary individual might, by forcing himself to it, drink flavoring extracts without being injured or without suffering any serious inconvenience other than the disagreeableness of getting the extract into his stomach. If he drank too much, however, he might become seriously sick, but this would be in accordance with the personal idiosyncrasies of individuals.

Therefore, it is our opinion that a court in passing on the issue as to whether flavoring extracts are "potable" or "non-potable" under the definition given in the dictionary as above could not escape from the conclusion that they are "potable" and would be compelled to so hold. Once this decision was rendered, and as stated, the court would have to so render under the facts, the flavoring extract industry of the United States would at that moment be held to be an illegal and illegitimate one, and would thereby be annihiliated and destroyed as an industry. What we have said above with respect to flavoring extracts is equally true in a genral way of perfumes, toilet waters and many of the common medicinal preparations that have been household remedies for half a century or more.

Are flavoring extracts "capable of being used as beverages?" It seems to us that the question as to

(Continued on page 40)

# Oleomargarine Has a Legitimate Place in the Food World

## Last February There Was a Meeting of the Southern Agricultural Workers and the Subject of Oleomargarine Was Discussed—The Report Made by This Committee Seems to Be Somewhat Inconsistent and Has Been Carefully Reviewed

### By MR. JOHN T. ASHCRAFT

AMONG the statements made in this report are that oleomargarine is a legitimate commercial product when sold as such, but that the present requirements relating to the coloring of the product are unsatisfactory. Furthermore the latitude should be given for the manufacture of oleomargarine in forms which will be more attractive to the consumer when so made under Federal supervision, but that these products should not be permitted in any measure to be sold or served as butter.

In order that the public may be adequately protected against deception all preventive measures should be adopted and a Federal tax sufficiently large to cover all expenses of proper control should be levied.

Another statement of this report is that dairying is a form of livestock husbandry which tends to increase and take the place of meat production as population increases and foods become relatively higher-priced and more scarce.

Accepting as a further fact that the cow is essential to the most economical disposal of the rough by-products and crop residues of the farm, and that accordingly she is essential to the most economical improvement and conservation of soil fertility.

Therefore the committee is of the opinion that the building of the dairy industry in the South is of much greater importance to agriculture development of the South than is the extension of oleomargarine production or the furnishing of such an enlarged market for vegetable oils as would be furnished by such increased oleomargarine production.

The report ends by stating that it is their opinion that if oleomargarine is made under strict Federal supervision and is sold strictly on its merits for just what it is, the dairy interests would have little to fear from such fair competition.

This report is signed by five members of the Association, W. R. Dodson acting as chairman.

The attitude of the Southern Agricultural Workers on this subject seems to be parallel to a number of others who have not apparently studied this subject carefully. The review of their position and its inconsistency as analyzed by Mr. Ashcraft is of interest to every one in any way connected with the oleomargarine field.

The attitude of the Association of Agricultural Workers of the South on the oleomargarine question, as expressed at its annual meeting February 26-28, 1919, is somewhat remarkable. It ought to be very carefully considered by the 2,000,000 producers of vegetable oils.

### Oleomargarine Inspection

In considering this attitude we should keep in mind that only oleomargarine containing meat products is inspected, and that this inspection is made under the Meat Inspection Act by the U. S. Department of Agriculture, and the expenses are paid out of the appropriation made under this act. Oleomargarine containing only vegetable oils and butter fat is not inspected. Many people suppose that the licenses, taxes and other revenue restrictions, imposed upon all oleomargarine, are intended "to cover expenses of proper control." The Revenue Department does not concern itself with the purity or wholesomeness of the product, but only with the color; and these revenue measures were adopted for the purpose of destroying the production of yellow oleomargarine and confining its manufacture to a white product.

Bearing these facts in mind, let us consider the attitude of the Association.

### Oleomargarine Is Sold as Such

It is said "oleomargarine is a legitimate commercial produce *when sold as such.*" Of course, no honest person desires it sold otherwise, but why cast a reflection upon this legitimate commercial product by implying that it is *not* sold as such. Nine hundred and ninety-five consecutive "judgments under the Food and Drug Act" are reported in *The American Food Journal,* May to January issues. Of these judgments, approximately 650 relate to foods. The principal violations in various forms are as follows: Tomatoes, 92; beans, 80; eggs, 73; fruits, 73; fish, oysters, etc., 71; vinegar, 58; milk, 44; olive oil, 19; gelatin, 19; candy, 5; syrup, 4; butter, 4; *oleomargarine none.*

The insinuation, therefore, that oleomargarine is *not sold as such* seems to be without foundation. That was the old cry. The cry of the butter journals now is that the dairy farmers of New York, Pennsylvania, Wisconsin, Minnesota and Michigan sell their cream, and, instead of buying butter from the creameries, buy oleomargarine for their own tables.

### Coloration

The Association very wisely takes the position that "the present requirements relating to the coloring of the product are unsatisfactory. Latitude should be given for the manufacture of oleomargarine in forms which will be most attractive to the consumer." It is the right of the consumer to have his food so made, and it is the obligation of the producer to so make it.

### Adulteration and Fraud

But was it necessary for the Association to say that "these products should not be permitted, in any measure, to be sold or served as butter? In order that the public may be adequately protected against deception, all preventile measures found necessary should be adopted." This statement carries with it the cruel and untrue implication that those engaged in the production and distribution of oleomargarine have less respect for, and yield less obedience to, the Food Laws than other classes of producers and distributors. As shown above, the public records demonstrate the fact that this is not true. There was a time in the past when the production and distribution of oleomargarine was on a low plane, just as the production and distribution of all other foods was on a low plane. Flour and sugar were adulterated with barytes and a hundred other mineral and vegetable substances. The production and distribution of milk, butter and cheese has been and continues to be a common scandal, against the extent of which the people are warned in almost every official food bulletin or journal published in the country. Canned goods were likewise a common scandal. When the Pure Food and Drugs Law was passed, oleomargarine producers and distributors were among the first to yield obedience to its mandates, as the records of the courts will show.

### Federal Tax

The Association feels that oleomargarine should be "made under Federal supervision * * * and a Federal tax sufficiently large to cover all expenses of proper control should be levied." Consumers and Southern farmers will never willingly submit to this proposition. The production and distribution of this food is as well guarded against fraud, impurity and unwholesomeness as is the production and distribution of any other food; and there can be no just reason why the abundant oil products of the South should be discriminated against. The great classes of citizens who produce these oils, and manufacture them into desirable food forms, and distribute them to consumers, are just as honest and are just as much opposed to fraud and filth and disease as are the producers, manufacturers and distributors of other foods. 'Consumers know this fact, and, instead of demanding the maintenance of the unjust laws now on the Federal and State statute-books, there is constantly coming from all parts of the country and from all classes of people (except butter-makers) a demand for the repeal of these laws. It is becoming universally known that these "preventive measures" were not enacted and are not maintained for "protection against deception," but it is known that they were enacted and are maintained to prevent people from buying oleomargarine in pleasing forms at reasonable prices, and thereby compelling them to buy butter at unreasonable prices and to limit as far as possible the use of vegetable oils.

### Relation to Dairy Industry

The Association "is of the opinion that the building of a dairy industry in the South is of much greater importance to the agricultural development of the South than is the extension of oleomargarine production of the furnishing of such enlarged market for the vegetable oils as would be furnished by such increased oleo production." The association seems to ignore the fact that in those countries producing the largest amounts of oleomargarine, dairying is the most prosperous. How could it be otherwise? In the production of oleomargarine large quantities of skim-milk are conserved. High-class butter is produced from the cream, and so the whole product of the cow is marketed. In the course indicated by the Association and practiced in their teachings by Southern agricultural colleges, the skim-milk, which contains one-half the food value of the milk, is practically wasted, only the butter fat being marketed. How can any industry be prosperous by such a course of procedure?

### Effect of Small Increase in Oil Price

The Association does not seem to consider that, if by removing these restrictions upon the market for Southern oils, they could be advanced even the small amount of four cents per pound, the additional price received by Southern farmers for the oil crop annually would be more than three times the price of all the creamery butter produced in the South. Even then these oils would be selling for less than lard, although they have the same food value as butter fat and lard, and are free from pathogenic germs.

### Resolutions of Farmers

The farmers of the South are beginning to understand that if it pays Holland, Denmark and Chicago to buy large quantities of these oils to be churned with the milk and by the labor of those countries into oleomargarine, it may pay to have these oils churned in Southern milk by Southern labor into oleomargarine. They don't know how this is to be done. They have produced hundreds of millions of pounds of these oils every year for decades, and seen them slip away at very low prices into unknown markets. It is believed not a lesson has ever been taught in any of their colleges about the production, refinement and combination of these oils into food, but it is evident they do not intend that they and their children shall continue to be kept in this state of ignorance. A number of large farmers' meetings in the South within the last year have passed strong resolutions demanding that the United States Department of Agriculture and the Southern Legislatures and colleges shall manifest the same interest in education concerning these oils that they do concerning milk and butter. They ask nothing more. They will be satisfied with nothing less.

The 10 peanut and cotton-growing States marketed in 1918 about fifty times as much vegetable oil as creamery butter. On that part of this oil which went into oleomargarine more than one million dollars was actually paid in license fees and taxes. This exaction was made, not to secure funds for the improvement of the industry, but to close as far as possible the best market for its product. The price of the entire crop felt the burdensome weight of the various restrictions and vexatious Federal and State laws. Do these agricultural workers consider this state of things fair to their own people who trust them for leadership?

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Its first formal complaint against an American manufacturer for unfair methods of competition in export trade, has been issued by the Federal Trade Commission against Nestle's Food Company, Inc., New York City, in connection with the exportation of condensed milk into Mexico.

The complaint, issued under authority of the unfair competition provision of the Export Trade Act, alleges that the company, with the effect of acquiring for its product any undue preference which might be given by the purchasing public in Mexico to condensed milk manufactured in Europe, has during the past year adopted and used on its cans labels which mislead Mexican purchasers into believing that the milk is manufactured in Europe, and which wholly conceal the fact that the milk is manufactured in and shipped from the United States.

# The Dietetic and Economic Value of Canned Fish

## Interesting Methods Are Described of Catching and Preparing the Finny Tribe for the Table

By ELEANOR LEE WRIGHT

WERE there ever happier days than years ago when you used to sneak away with a battered tin can chock full of angly-fishing worms and carrying an impromptu fishing pole to cast your homemade hook in fresh nearby rivulets?

And as you grew older the fun diminished and life took on a more serious aspect. Fishing to you then became only an occasional outing, when you could reminiscence about your earlier childish pranks.

And now, even for the sake of the best fish, who has the time to browse along the sunny borders of Mexico, or the jutting shores of Alaska and across the continent to Nova Scotia? It's a long trip, longer than you could make to supply your inland table with the very best products of the seas.

But that is the trip the commercial producer of this delectable group of foods must take to give you these best marine products.

Commercial canning in the United States began one century ago with the canning of fish. Two New York men, Ezra Daggett and Thomas Kensett, then realized the simplicity of the canning processes which the Frenchman, Appert, originated, so that they introduced the first steps of our modern American methods by packing salmon, oysters and lobsters

Some years later, in 1852, a man named Hume, with his associates, started the first salmon cannery, a crude affair, on the banks of the Sacramento River near the city of the same name, then a mere village. From that time to this, the salmon industry has grown to unbelievable proportions.

In a quarter of a century the salmon pack has increased about ten times and represents millions of dollars.

The mystery of the life and being of the greatly-favored salmon has much deep interest. A number of scientists have practically made a life-time study of this engaging phase of icthyology.

In a treatise on the subject prepared by one of them the subject is dealt with most thoroughly. It tells how the ova are deposited in the gravel in the fall of the year, covered with milt and hatched in seventy to one hundred days, depending upon the temperature of the water. At first the little "alevins" have no fish appearance. Their little bodies are attached to a yolk-like sac which gives them nutriment until they attain their true fish shape.

As the salmon develops it is called by a variety of names: First, fry; then par and later smolt, until they become grilse and salmon. The salmon usually attain their largest size in the month of August after a growth of about three years.

These facts are particularly interesting to the canner of this important product. It is important for him to know how much salmon can be produced and how much can be depended upon for canning, so that he can supply the best quality for the increasing demand for this palatable, nutritious food.

There are many varieties of salmon used for canning purposes, but the best of all is the Puget Sound Sockeye, or as the Indians always called it, "Saukeye." Best, because of its wonderful red coloring, its delicious flavor, because of its tender flesh, rich in delectable oils.

For oil is to fish what fat is to beef. It adds to the tenderness of the product. And—did you know that salmon has two especially good cuts? They are taken from either side of the center of the belly.

The salmon are caught in various methods, carried to the fish wharves and into the fish-house. There they are placed on tables and their heads cut off, after which they are carried to a special machine which cleans and splits the fish, including the removal of tail and fins. After this they are thoroughly scrubbed and cleaned and cut transversely in sizes suitable for completely filling the cans.

Other processes employed in the canning of salmon are identical with canning processes used in preparing other products which have been discussed in former articles.

Salmon is packed in three sizes of tins, depending on the circumstances and not on the quality of the pack. The tall one-pound tins are packed by machinery while the one-pound flats and the one-half-pound flats are packed by hand.

The Puget Sound variety of Sockeye salmon is richer than that found in the Alaskan waters and has a brighter, lovelier red color. There are economic reasons, too, for the preference for the run in this locality: The season is longer, giving the packer more time for care of the details. Then, too, it runs more heavily at the mouth of the Puget Sound where the river mouths open into it.

It is needless to make a food value comparison of salmon with that of other highly nutritious foods.

Sardines are another important item in the fish canning industry. This phase of the industry started in 1875 in New York. At first it developed rather slowly, but now the tremendousness of it evidences the success which it finally attained.

The domestic sardines used for the canning purposes belong to the herring family and are said to be of the same species as the sardines of Spain, France and Italy. All along the bay-jagged shores of the North Atlantic coast weirs are built to catch the plentiful sardines, Eastport, Maine, being considered the center of the industry, although there are other important centers, while nowadays the industry has even spread to the Western Coast.

The weirs used for catching this

variety of fish are very similar to those used for the trapping the salmon in the Pacific Coast. Overlapped and intertwined walls of brush are held in place by poles driven in the mud and having an open space toward the sea. As the tide rises the fish are brought into these weirs where they remain at the ebb of the tide. The fish are turned away from the open entrance by the way in which the wings of the weirs are built.

The fish then swim straight ahead till they meet an obstruction, follow the lines of weir and never turn back towards the sea. Since time immemorial such methods of catching fish have been used.

It is a most picturesque view to see the fishermen glide up in their boats bearing long seines which they draw around inside the weirs, contracting them gradually until the fish are collected in a small space. The fishermen then use large dipnets and dump the fish into the boats.

Sometimes they take them directly to the canneries while other times they first transfer them to larger boats. At the cannery the sardines are put in large baskets and conveyed to the cutting tables.

Processes similar to those used in canning salmon are used. The sardines first pass through scalers, then the cutters which remove the heads and viscera. Placed in nets they are given a most thorough washing after which they are placed in a strong brine for a short time, removed, drained and placed on wire frames. These frames are put in a rotary oven which dries and partially cooks the sardines.

The cooking process requires much skill so that the fish will not become discolored or too soft. The sardines are then sent to the packing room where they are packed in oil or mustard sauce, or they are spiced with cloves, allspice, bay leaves and mustard seed. Following the packing in the cans, the sardines are cooked, tested, cooled and the cans are cleaned and cased.

The rigid inspection which this canned fish, like all other canned foods, receives, makes them absolutely safe for consumption, while the food value of this product is unquestionable.

Tuna fish, the chicken of the sea, is a relative of the mackerel and is found in the Mediterranean Sea along the coast of Sicily as well as along our coasts of the Atlantic and Pacific.

The European tuna fish is called a "tunny" and grows to enormous size, some weighing as much as a thousand pounds. This variety has firm, solid flesh but because of its dryness is canned in oil which places it in the realm of delicacies.

The Pacific Coast tuna, caught along the shores of Southern California, are considered the great game fish, and it is this albacore variety that has recently become so popular as a canned food. It is a beautiful fish, trim-shaped, well-developed and readily distinguished from the smaller tuna by its long pectoral fins folding along its sides, giving it the appearance of the flying fish.

The snowy white meat of this well flavored fish is canned and processed by methods similar to that of other canned foods. The preparation is conducted with the greatest care. It is drained free from blood, steam cooked and cooled. The skin and bone are then carefully removed, the tender white meat packed in cans, which are sealed, processed, labelled and cased.

The varieties of tuna fish are distinguished by the coloring of their fins—the blue-fin, red-fin, and yellow-fin. It is interesting to know that red-fin tuna are the preference of the Italians and that it is rarely found in this country.

There are many delicious ways to use canned tuna, all of which add pleasing variety to a monotonous diet.

Packing lobsters presents more difficulties than most any other canned product. Severe storms destroy lobster traps so that the catch is not altogether dependable. Placed along the shore for a stretch of one to seven miles the bos-like traps, made of lath, are baited with the lobsters' food preference, the herring. A trawl line or rope is anchored at the ends, marking the long row of stone weighed set ten feet apart.

From one hundred to one hundred and twenty-five of the traps are inspected by the fisherman who removes the lobster through the door at the top of the trap, rebaits it and sinks it to the bottom and goes on his way to the next trap ten feet away.

Then he takes his catch to the factory where the lobsters are carefully picked over, all dead ones being thrown out. Live lobsters, only, are put through the canning process.

Several hundred pounds of lobsters are put in huge tanks of boiling water for the proper length of time. Removed and cooled, the claws and tails are taken off by the "cracker," the meat is thoroughly cleaned and sent to the packing table. Hand-packed in cans lined with oiled paper the lobsters are subjected to the retort process of canning.

The phosphorous and iron in the composition of the lobster makes it a particularly valuable food product. Some claim that the meat from the claw is the most tender and sweetest part of this nutritious food.

The bright color of the lobster varies not because of the method of canning, but because of the place where it is caught. Lobsters trapped in muddy bottoms near shores are likely to have a grayish tinge while those caught in clear water with a gravel bottom will maintain their attractive color.

Years ago when shrimp canning was introduced in New Orleans by a man named Dunbar, difficulties in preserving this product immediately arose. The phosphorous in the shrimp caused them to become black when it came in contact with the can. Mr. Dunbar then attempted canning it by first placing the shrimp in a cloth bag. Later thin sheets of wood veneer were used and then the oiled paper lining of present day methods were introduced.

In the spring and fall of the year schools of shrimps journey from their deep salt-water homes to the shallow waters in the Gulf of Mexico. Here they are caught in long seines, pulled to shore, immediately iced in barrels and taken to the cannery.

## LESSON ON CANNED FISH

I. What bearing has the canning of fish on the canning industry?
II. What fish are canned chiefly?
III. Tell something of the life of the salmon.
IV. Compare the food value of canned salmon with that of other similar foods.
V. Name six ways of preparing canned salmon.
(a) Compare time required and results gained with those obtained when using fresh salmon.
VI. How are sardines caught?
VII. Describe the processes used in canning sardines.
VIII. Why are canned shrimp and lobster valuable as foods?
IX. Why are canned fish valuable from an economic and dietetic standpoint?
X. Why is oiled paper used in canning these products?

Expanding to Meet Public Needs

THE packer is a purveyor of foods. Largely dependent on him are the producer, the retailer and the consumer. The farmer looks to the large packing concern to provide outlets for what he raises. The housewife relies upon the packer for an important part of her daily food supply. Retailers expect prompt service and regular deliveries.

To meet these responsibilities successfully makes large scale operation imperative. To buy from the grower whenever he is ready to sell, Armour must have a national market to distribute foods everywhere. And conversely, to make food supplies certain, Armour must be able to buy in many producing centers.

Serving both producers and consumers, it is evident that such a business must be conducted fairly and beneficially to all.

To carry out its uses fully, the *responsibilities of the business must be met by the responsibilities of those it serves.* In its own interests the public must give big business the opportunity to perform the service which is very properly expected of it.

Food plants would be unable to give stock-growers outlets without the branch houses which are continually competing for trade. And neither the producing plants nor the distributing branches could operate on an efficient and economical basis without the modern refrigerator cars directed under a single management which controls their movements.

The Armour system is the outgrowth of national needs—a system that can give maximum service only as a whole—and if dismembered, it would fail to live up to the requirements which the country and city public today demands.

ARMOUR AND COMPANY
CHICAGO

4416

## The Times Demand Greater Effort to Preserve Food

(Continued from page 13)

stock in part and part thrown into the sewers.

California newspapers have recently carried many news items and stories concerning the indictment of thirteen milk dealers in San Francisco for taking part in a conspiracy to keep prices up. It is charged that surplus supplies, consisting of thousands of gallons of milk, were withheld from the San Francisco market and that after the cream was skimmed from this milk the skimmed milk was thrown into the sewers.

In an article recently printed in the Baltimore News, Dr. Marion Hopkins, head of the bureau of investigation of the Health Board, is quoted as saying that thousands of gallons of milk were withheld from the Baltimore market and was disposed of in a similar manner as the surplus in San Francisco. Many other cities have reported similar situations and undoubtedly this practice is quite common.

Now why is not this great surplus of milk canned so that it will be available to humanity in the months when fresh milk is scarce? The only anwser that can be made to this question is that the people of this and other countries have not been sufficiently educated to the value of canned milk.

The canning of milk either in condensed or evaporated form is a highly perfected art. Science is pretty well agreed that canned whole milk contains all of the nutrient qualities of fresh whole milk and that it is safer because it is freer from pathogenic germs and purer than fresh milk. A long series of experiments by Dr. Phillip B. Hawk shows that milk that has been heated, and all evaporated milk is heated to sterilize it, is more digestible than is the raw milk.

As regards the proteins, sugars and mineral salts of whole milk, all are found in the evaporated and condensed milks. The difference between evaporated and condensed milk is in the methods of preservation. Evaporated milk is made to keep by the heating process while condensed milk is made to keep by the addition of sugar.

Now as to the vitamines which science has shown so conclusively are essential to existence, especially of children, publication of the results of experiments which have been made to determine whether or not sterilized milk contains the vitamines the same as fresh milk, will soon be made which will show that the evaporation, condensation or sterilization of milk does not destroy its vitamine value.

On a Wisconsin dairy farm a series of feeding experiments have been conducted by keeping calves on a diet of sterilized, evaporated milk in place of fresh milk and all of the calves attained normal growth and strength. The history of these experiments will soon be published, it is said. Dr. Rosenau of Harvard and Dr. McCollum of Johns Hopkins are collaborating in a series of feeding experiments to determine the viatmine value of sterilized milk and, while their work along this line has not yet been finished, Dr. Rosenau indicates in a letter addressed to the president of the National Canners' Association, and published in the THE AMERICAN FOOD JOURNAL of June of this year, that "the results are favorable" and the history of these experiments will soon be made public.

So we see that canned whole milk is just as nourishing as fresh whole milk, it is more digestible and it is

(Continued on page 33)

# What Is Bread?

IF you bought from your bakery a loaf of bread, would you feel that you were being deceived if you found out that 5% corn flour was used instead of 100% wheat? This is a question that has been interesting the Bureau of Chemistry and an interpretation was made by the Department of Agriculture May 15 that bread could not be sold as such, unless made completely of wheat flour.

Inasmuch as many bakers have for years been using a small percentage (around 5%) corn flour in their bread, there was a wide protest made on this ruling by the American Corn Millers Association, The National Association of White Corn Millers and several Bakers Associations. At the request of these associations Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, met with the above organizations in Chicago, July 3.

Secretary Lackey of the American Corn Millers Federation presented formal opposition to the Department's interpretation of bread. After this was read, the hearing began by Dr. Alsberg stating that there was no question in the ruling regarding food value, but that as housewives were accustomed to baking bread, when they purchase bread they are deceived if they do not get bread produced completely from wheat flour. The doctor raised the question that the consumer is entitled to know exactly what she is getting.

Mr. Guning, representing the National Association of White Corn Millers, took the floor, and strongly protested against the position in which they had been placed. Patriotically, the millers, at the urgent request of the government, enlarged their plants, increased their outputs to help win the war. He stated that his firm, the American Hominy Co., spent $500,000.00 in improvements as a response to this appeal. He added that the Wheat Corporation, at a later date, prevented the exportation of corn flour owing to its exclusive interest in wheat flour and, subsequently, without notice, cancelled the substitution regulations and practically killed corn milling. Then when corn millers began to enjoy some pre-war returns of demand from bakers for corn flour the Department of Agriculture's ruling that "to be bread and sold as bread" it must be made from wheat flour, simply means further discrimination and practical ruin to corn flour millers.

Mr. Livingston, speaking for the Livingston Bros. Bakery and others of the Chicago Bakers Club, declared that to his own knowledge corn flour has been used in bread baking quite generally for fifteen or more years. Probably about 5%. Others also confirmed this condition.

Dr. Alsberg inquired as to whether such a practice as also the practice of some using corn starch was to insure greater water absorption and to produce more loaves with corresponding increases in profit?

Messrs. Grant, Livingston and Yaeger stated emphatically no. That several essential reasons existed and they were explained at length by Mr. Yaeger, who is a consulting baker's chemist. Mr. Yaeger explained that before corn flour, starch, Badex, or other corn byproducts were used, it was difficult to produce bread that would keep fresh for 48 hours. He explained that bread shippers must have bread with sufficient moisture to be moist and palatably fresh for 48 or more hours. That corn flour or corn byproducts produce a whiter loaf with other advantageous features. That from the bakers' viewpoint, he must produce better bread than the housewife makes or else he wouldn't sell his product. He explained that when the consumer uses bread every day in the year he would tire of the monotony of bread made from 99% wheat flour and that it is the intelligent practice of bakers to vary their baking formulas to insure an appetizing variety. That it has been his long experience that the buying public calls for popular makes or labels only when buying bread, and never calls for wheat bread. This was the unanimous understanding of all those present. Dr. Alsberg expressed a desire for substantiating evidence in support of this viewpoint and it was promised. Mr. Yaeger explained further that the use of corn flour flakes, or other starchy corn products or dextrin, plus material, stimulated fermentation in dough preparation, and while he is not yet ready to announce the detailed results of his recent research efforts he could say that for four months he has been producing bread of superior quality and giving the consumer a bigger slice through combining durum wheat flour with corn flour. That durum flour contains gluten in large volume and that while it is unmanageable alone and requires around nine hours for proper dough fermentation when used alone, that by mixing with corn flour the time of fermentation is brought down to five hours or to a saving of four hours on each baking. Durum being high in protein would also show higher food value when mixed with dextrin plus products. The bread analysis showed 1% higher protein and higher soluble carbohydrates content.

It takes from eight to nine hours to ferment durum flour and looking at it from standpoint of consumer, will prefer a loaf of bread made of durum if you can reduce your fermentation period to five hours by using a certain amount of dextrin plus much more yeast—plus dextrin, you will get a loaf of bread that will, in competition, shut out everything else in the city. In using corn flakes, grits, or meal, it must be gelatinized. That goes back to the corn flour proposition. I don't think that any baker would use any excess quantity—10% is all I would use. Can give further information—that it takes 6 pounds of fermenting material to handle 100 pounds of flour and with a pound of yeast on patent.

Dr. Alsberg stated that his department is not certain about the justification for using starch in bread baking, but no objection could be interposed against corn flour from the standpoint of food value in comparison with wheat.

Mr. Livingston stated that it is common knowledge that rye bread is 50% wheat flour and what would be the Department's attitude as to the sale of rye bread? Dr. Alsberg replied that rye bread probably couldn't be made any other way and really was not an interstate product. Bakers present assured him that it is shipped interstate and Dr. Alsberg expressed the opinion it would not have to be labeled.

Secretary Lackey inquired as to whether such labels as "Butterkrust" or the like would sufficiently individualize bread as to eliminate the necessity for stating other materials than wheat? Dr. Alsberg stated they would not avoid the necessity for labeling other contents than wheat.

Dr. Alsberg: "You can take durum with 18% of gluten and put it with corn starch total you cut down to 12% gluten and then you get a flour, so far as baking profit is concerned, similar to 12% gluten—excepting that it would be a wider loaf."

Mr. Yaeger: "I do claim that we get a higher production than that. I got the equal amount of the kind of flour you are using and if I look for my soluble carbohydrates, then I have more food value."

Dr. Alsberg: "This rule was aimed at corn flour, rice flour, and at anything that would be substituted for wheat."

Mr. Livingston: "From baker's point of view he has got to make the best loaf of bread to compete with his greatest competitor. Bread is about the only thing we can eat 365 days a year. Most successful practice is to change formula—but if he has to get a label—there isn't a housewife in America that says 'give me a loaf of wheat bread.'"

Mr. Yaeger: "We put on a new loaf in our neighborhood—just to bring up the bread business—a new taste. How can you make a new taste when you only have wheat flour to use.

Mr. Yaeger: "Why didn't we label bread before?"

Dr. Alsberg: "Before the war practically nobody was using 15 or 20% of corn. The average baker didn't buy a barrel of corn flour before the war."

Mr. Livingston: "I want to say that in our bread before the war we used a higher percentage of corn flour and corn products than we are using right now."

Mr. Genung: "I want to say we sold hundreds of thousands of barrels of flour to bakers for years before the war."

Secretary Lackey then suggested that it was apparently the opinion of all those present that corn flour has been used in bread baking and regularly for many years: That it is necessary for the variation of formulas, and economizing of fermentation time and that it does not impair food value; and that the necessity of competition with the housewife and bakers for the production of the best and most acceptable bread will certainly avoid the possibility of excessive use for the purpose of reducing production cost—are all apparent and good reasons for a modification of the Department's ruling. At least as it applies to corn flour, and made specific request for immediate suspension.

Dr. Alsberg stated he must necessarily have an opportunity to confer with others in his department, but promised some action.

The Federation Secretary is now in receipt of the following and which suspends the Department's ruling until further action is necessary:

Dr. Alsberg's letter to Secretary Lackey is as follows:

"The representations made by you and your associates at the hearing in Chicago on July 3 have been very carefully considered by the Bureau of Chemistry. Inasmuch as at that hearing certain issues of fact were raised, the Bureau has decided that it will be necessary for it to investigate the significance of the issues of fact presented there. Pending the completion of this investigation, the Bureau will take no action under the opinion expressed in the Service and Regulatory Announcements concerning the labeling of bread made from mixed flours. When this investigation has been completed, you will be notified of the results, and should you or your

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associates so desire, will be given a further opportunity to discuss the matter with representatives of the Bureau."

We seriously question whether the housewife cares whether or not the loaf of bread she buys contains a small percentage of corn flour. Corn was a staple American food long before wheat. Every one knows the food value of corn and no one questions it. When the housewife buys bread and knows it has not lessened in food value and is more palatable by adding corn than bread produced entirely from wheat, she is little concerned about being deceived. This having clearly showed that the only interest bakers had in using corn was to produce a better, more palatable loaf of bread, and when there was no question of lessening the food value it would seem as though lines are being drawn rather fine.

There is scarcely a food industry existing that is not in some way using something in the content. These additions are put in to make a better product, not to cheapen, or to deceive, for today the maker's name is the housewife's protection. The housewife is perhaps equally deceived when she buys jam, because sugar has been added, not that sugar is injurious or lacks nutrition, but because it is sold as jam.

Cake for example—where is the Solomon that can say what is cake and what is not? When is candy not candy? We feel quite sure the Bureau of Agriculture will see the injustice and hardship of discrimnating against corn, the king of domestic cereals, for it is of far greater interest to the public than any manufacturer.

## Olive Oil to be Exploited

The advance report on the Grecian olive oil production predicted a total of 31,702,800 gallons.

The California Olive Association at its recent annual meeting in Los Angeles took preliminary steps toward instituting an extensive and comprehensive advertising campaign to exploit the superiority of California ripe olives and California olive oil.

"Have some aigs dis mornin', Jedge?" asked the ebony waiter.

"Not this morning, Sam," replied the man of the Bench, adjusting his spectacles preparatory to distinguishing the name of some dish on the menu from the fly-specks.

"Ever try enny of our fresh boiled aigs, Jedge?"

"Yes, indeed, Sam; and found 'em guilty."

## The Times Demand Greater Efforts to Preserve Food

(Continued from page 30)

safer. And yet, statistics show that not over ten per cent of the families of this country are using canned milk in any form. One of the reasons is due to the fact that the sterilization or heating process gives the canned milk a boiled or cooked taste, which many users of whole milk are not used to and they therefore avoid it. But taste is simply a matter of education and if millions of people can be educated to like olives, bananas and grape fruit, as they have been in the last decade, they can be educated to like canned milk. And it is important that they should be educated to like so valuable a food because, until we have arrived at the place where more milk is canned and less is wasted, humanity will not have for its use all of the milk that is produced and the demand which is increasing for milk as a whole food will not be supplied.

As to skimmed milk, which is a necessary by-product of the dairies, if we are to have the butter which we have long been used to, there are about thirty billion pounds of this good human food fed to stock or wasted every year. Thirty billion pounds means about four billion gallons. Now skimmed milk contains practically all of the proteins, carboyhydrates or sugars and mineral salts of the whole milk. It is deficient in fat and less rich in vitamines than whole milk. Dr. McCollum says that when milk is skimmed about half of the vitamines go with the cream or butter fat and the other half remains in the skimmed about half of the vitamines cellent food very large quantities of which are failing to reach humanity directly as food.

One of the difficulties that has obstructed the marketing of skimmed milk as a human food in large quantities is due to the fact that, until very recently, the food value of skimmed milk was not fully appreciated. Another reason is that skimmed milk is practically tasteless without the fat and is, therefore, not relished when taken as a beverage food, and also when it is used in cooking, which is one of the very valuable ways in which skimmed milk should be used, it does not meet all the requirements because of its lack of fat. The fat makes cooked foods richer and lighter.

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Consultant in the Design and Operation of Plants for the Manufacture, Refining and Use of Vegetable Oils.

vegetable fats which are wholesome, nutritious and less expensive than animal fats, and in view of the fact that science has discovered a method of emulsifying vegetable fat with evaporated skimmed milk, there is no reason why the milk supply of the world should not be increased by the addition to our preserved foods of canned skimmed milk, enriched with a vegetable fat to supply the ingredients lost when the milk was skimmed.

Such compounds, if objected to for direct feeding purposes, because of the deficiency of vitamines, could be profitably used for cooking purposes and thus save great quantities of fresh milk for direct consumption.

As an example of how an economy of this kind would work out let us assume that each family in the United States should use the evaporated skimmed milk compound in cooking instead of fresh milk to the extent of about one-half cupful a day. The saving in fresh milk for direct consumption would amount to about 912,500,000 quarts annually or the output of about 400,000 cows. Of course every family does not use fresh milk in cooking every day. Many do not use it in cooking at all and for these an inexpensive milk compound would be an addition of just that much food value to their cooked and baked articles of diet.

Many similarly wasteful practices still exist in regard to other foods than milk. Very many of the farmers of the country have no canning institutions. As a result of make no attempt to dispose of their surplus vegetables and fruits to canning instittuions. As a result of this condition, when we have a year in which our fields and orchards have been particularly prolific, the nearby markets which the farmer depends upon become glutted with food products of various sorts and prices go down to the place where the farmers say that it does not pay to haul the produce to the market. Much of this stuff goes to waste. A short time later the large cities report a scarcity in food stuffs and prices go so high that the poorer classes suffer from under-nourishment. It is obvious, therefore, that if more of the farmer's products were canned during the season of plenty there would be fewer and shorter seasons of scarcity, prices would be more stable and the farmer, knowing that his entire product could be sold, would be able to plan to better advantage as to how much of each crop he should devote his land to.

It is therefore important to the food-producing industry and to the consumer of food that greater emphasis be placed upon the matter of food preservation. The consumer and the producer must both learn more about the dietetic value and the economic importance of the various methods of food preservation.

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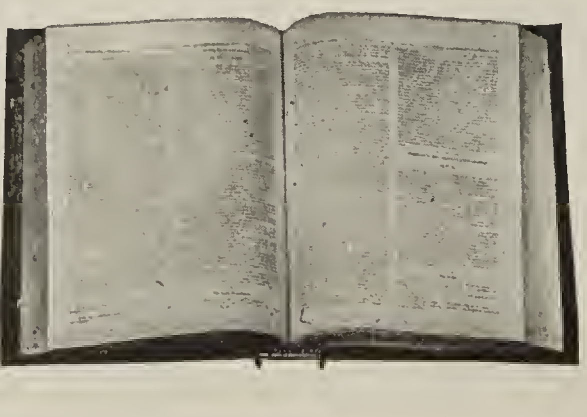

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*LARGEST MANUFACTURERS*

## Wilson & Co. Retires From Grocery Business

Wilson & Co., the Chicago packers, have disposed of their grocery, vegetable and fish-packing interests to Austin Nichols & Co., of New York.

In an announcement to the stockholders of Wilson & Co., signed by Thomas E. Wilson, it is said it was deemed advisable to make that disposition of the grocery, vegetable and fish-packing parts of the Wilson Co. Under the deal each stockholder of Wilson & Co. is entitled to subscribe for four shares of Austin Nichols & Co. stock at $25 per share for every ten shares of Wilson & Co. stock that he owns.

Austin Nichols & Co. do a buying and selling business in nearly every country in the world and have a number of branches throughout America, with their own piers, warehouses and shipping.

The "Big Five" of the packing world, of which Wilson & Co. is one, have been accused lately because of their invasion of the wholesale-grocery field, of attempting to monopolize it. Recently the National Association of Wholesale Grocers filed with the Interstate Commerce Commission a complaint against a practice alleged to have been used by the packers to further their interests. This alleged practice consists in arrangements with the railroad companies by which various wholesale-grocery products are allowed to be included with the perishable packing products, which are given preference in delivery. Thus the packers, said the complaint, are able to promise their customers a delivery of such non-perishable products as canned goods and the like inside of twenty-four hours. The best the wholesale grocers can do is several days or a week.

The Austin Nichols firm is a member of the National Association of Wholesale Grocers and as such participated in the protest.

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What breakfast is so pleasing, so satisfying as Aunt Jemima Pancakes, smothered in syrup and butter! And no breakfast is simpler to prepare. Just add water to Aunt Jemima Pancake Flour and the fragrant cakes are ready as soon as the coffee is.

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is the finished and perfected result of skill, science, experience, and the use of highest grade materials.
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## Defining Eggs

In order that there may be no confusion or misunderstanding with reference to the enforcement of the new law prohibiting the sale of eggs for and as "fresh eggs" that are not "fresh eggs," as may appear upon proper test, James Foust, Director of the Bureau of Foods, Department of Agriculture of Pennsylvania, issues the following statement:

There are four classes of eggs—

1. A "fresh egg" is one that is understood to have the following qualities: Its white is capable of whipping well; in cooking it can be satisfactorily poached or soft boiled; it has not absorbed foreign disagreeable odors; its embryo shall not have developed appreciably. The yolk should be fairly stiff and well rounded and the white should not be watery, and the chalaza shall be well defined.

2. Cold storage eggs must be sold in accordance with the Cold Storage Law and must be represented and labeled "cold storage eggs."

3. Eggs kept for a period of time by the water glass, lime or other methods that cannot be classed as "fresh eggs" but are edible, wholesome and suitable for all food purposes except such as require "fresh eggs."

4. Eggs that are decayed, partly decayed, or decomposed and unfit for food purposes, have a commercial value for tanning leather such as is used in the manufacture of gloves. Rotten eggs must be promptly denatured with kerosene oil, and when opened must be placed in a container painted a bright red color. It is unlawful to open rotten eggs and remove the content from the shell in establishments where food products are prepared or manufactured, or to open rotten eggs in an establishment where good eggs are opened for food purposes.

Sanford C. Dinsmore, Commissioner of Nevada, has just returned, having been overseas with the American army. He was discharged from service July 7th.

Mr. Dinsmore passed through Chicago recently, telling us he hopes to be at the New York convention.

Dr. Carl Alsberg, chief chemist of the Bureau of Chemistry, has been making a two months' tour in Alaska on official business. He expects to return September 1 and will be on hand for the Convention of Commissioners at New York on September 8.

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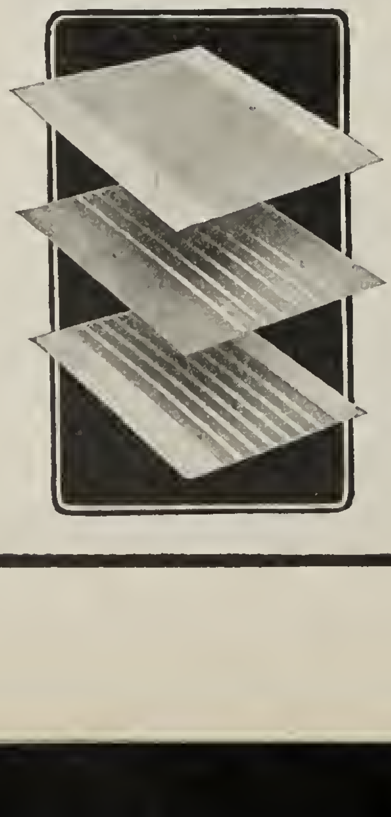

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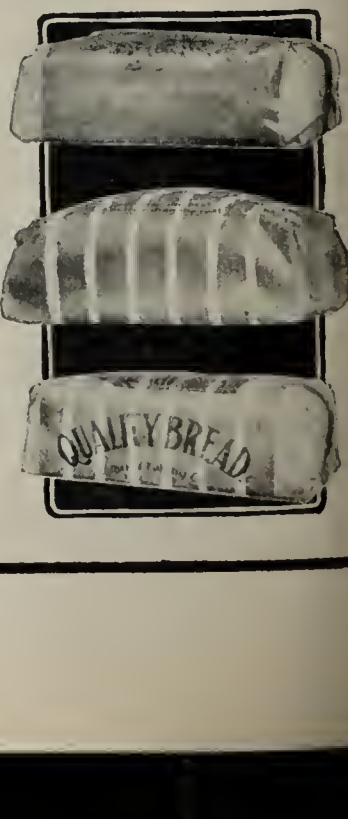

## Whole Milk as a Market Commodity

(Continued from page 11)

of the fact that cream can be hauled profitably much longer distances than can milk, creameries thrive in more sparsley settled communities than do cheese factories or condenseries.

*The cheese factory as an alternative market.* Prices paid by cheese factories are usually somewhat higher than those paid by creameries, but, instead of having the skimmilk for feed, the farmer gets only the whey, which has much less feeding value. In addition there is the greater expense of daily delivery of the milk and the return of the whey. Farmers seldom find it profitable to haul further than from three to five miles to a cheese factory, the latter distance being rather unusual.

*The condensory as an alternative market.* They are always located where large quantities of milk are available within small areas. Prices are usually somewhat higher than are those of other markets, since more care is required in the production of milk for condensing purposes.

*The ice cream factory as an alternative market.* There is scarcely a town of any size that does not have one or more ice cream factories.

Ice cream factories usually pay somewhat higher prices than do creameries. The demand for ice cream fluctuates very widely with weather conditions, or gala days. Hence the manufacturer cannot contract for a regular supply, but must buy large quantities on short notice and not infrequently find it necessary to cancel orders because of sudden changes in weather conditions. Large factories, of course, make some ice cream at all times; but, on the whole, the ice cream factory is not so stable a market as most of the others, and for this reason many ice cream makers now obtain much of their cream from various creameries, paying enough to cover additional handling and transportation charges and to leave a profit for the creamery at least equal to what it would have made by turning the cream into butter.

(Continued in September)

## The Same Old Story

Dishonest substitution of a serious and extensive character was reported recently by E. J. Brennan, secretary of the St. Louis vigilance committee (Better Business Bureau), says a report from the Associated Advertising Clubs of the World, of which the St. Louis committee is a part.

Mr. Brennan found that many grocers were selling bulk macaroni upon the representation that it was the product of a factory whose package macaroni is widely advertised. He found that in some stores, the signs issued by the manufacturer were placed above the bulk "elbow" goods, and in others, people were informed when they asked for the goods under the advertised name, that the bulk goods were made by the same company and were, therefore, "the same."

Mr. Brennan's investigation brought him to the conclusion that the man who stocked the grocers with the bulk goods was partially responsible for the deception. Grocers said the salesman had told them the goods were made by the manufacturer of the branded product.

The situation was found to be so serious that Mr. Brennan issued a special report, sending it to grocers, wholesalers, manufacturers and others, calling attention to the practice, and warning grocers against violating the law, while at the same time showing them that such practices do not pay.

"Remember," says the report, "that you make your money out of the customer who comes back. Aren't you foolish to give him any reason for staying away?"

In more than 100 cities, says the bulletin from the advertising association, vigilance committees are on the job, guarding against untruthful advertising and related unfair practices.

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ALL GRADES
ALL SIZES

*Largest Distributors in the World*

**KELLEY-CLARKE CO.**
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VANILLA

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*The same high quality is found in PRICE'S*

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Pure Fruit Extracts

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We guarantee this OLEOMARGARINE to give entire satisfaction or money refunded
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WM J. MOXLEY'S
MOXLEY
SPECIAL
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**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley**, Chicago
INCORPORATED

## Macaroni Standards Are Again in Force

### Substitutes Allowed During War Now Prohibited

Pre-war standards for macaroni, spaghetti, vermicelli and similar products are now in effect, says the officials of the Bureau of Chemistry, United States Department of Agriculture, in charge of the enforcement of the Food and Drugs Act.

During the period of the war substitutes for semolina of hard wheat were permitted for the manufacture of these products because of the urgent necessity for conserving wheat.

Since this necessity no longer justifies substitution, all macaroni, spaghetti and similar products shipped within the jurisdiction of the Federal Food and Drugs Act must comply with the standards as published in the United States Department of Agriculture Circular 136.

The standards define macaroni and kindred products as made from the semolina of hard wheat and containing not more than 13½ per cent of moisture. Products made from flour or from a mixture of flour and semolina may not be labeled as "macaroni" or "spaghetti," according to the standards, but should be labeled as "flour macaroni" or "flour spaghetti," etc., as the case may be.

Real macaroni made from the semolina of hard wheat when cooked has different qualities than those of flour macaroni. It is much preferred because of these qualities by those who know what real macaroni is, although flour macaroni and kindred products have merits and are excellent foods.

Flour macaroni being inferior to real macaroni should be cheaper in price. The enforcement of the standard enables the housewife to know in each instance whether she is obtaining a product made from semolina or one made wholly or in part from flour.

## History Repeats in the Matter of Food Prices

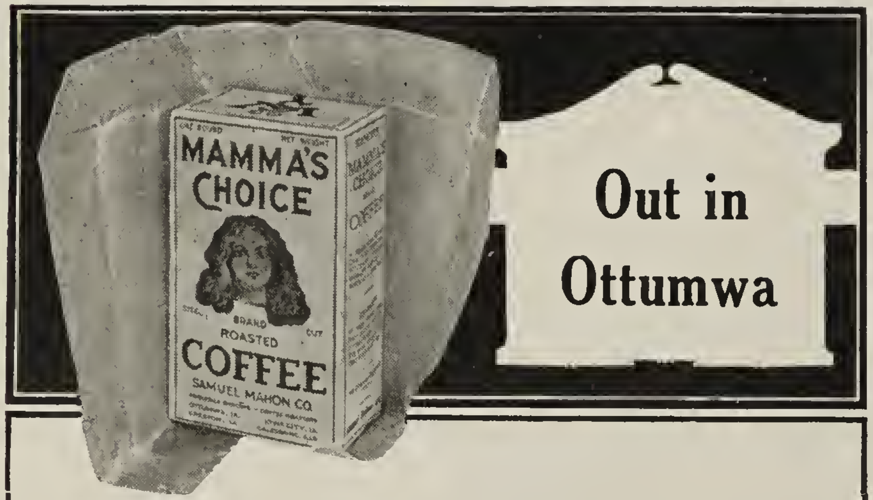
In the world war, through which we have just passed, so far as food prices are concerned, history seems to be repeating itself. Prices advanced rapidly notwithstanding the fact that the law of supply and demand was not given full sway and declined (excepting where controlled) following the signing of the armistice. Food prices are again stiffening, which probably indicates that the first decline was overdone and that 1865 is going to repeat itself.

Both industrial commodity and food prices advanced sharply and almost continuously from 1861 until the beginning of 1865 and both dropped decidedly during the first half of that year.

From the middle of 1865 until the begining of 1869 the price index for food remained practically constant, being as high at the end of this period as at the beginning and this notwithstanding the fact that industrial commodities were in the meantime declining rapidly.

For a period of almost five years or until the begining of 1870, the fluctuation of the price index for food did not exceed 25 per cent the range of fluctuation being from 75 to 100 per cent in excess of the price in pre-war times. Fluctuations of food prices throughout the whole period were generally much less erratic than in industrial commodities. It was not until 1878, thirteen years after the civil war, that food prices finally reached pre-war levels.

The labor situation is different, however, now than then. Wages advanced to a point during the recent war that was not thought of during the civil war.



Out in Ottumwa, Iowa, Samuel Mahon Company roast coffee and then market it in a thorough manner.

The sweet little Golden Locks on the carton is not permitted, because of her tender age, to drink coffee, but she has learned what is "Mamma's Choice" and one of the things she looks for is the KVP waxed sealer around the carton.

This superlative coffee would not long remain "Mamma's Choice" if it were to lose its flavor from standing on the shelves of a dealer. The KVP waxed paper insures the goodness—and that's what keeps the stream of Iowa kiddies tramping paths to the grocers for Mahon coffee.

Write for samples or wire for prices on KVP Waxed paper.

**KALAMAZOO VEGETABLE PARCHMENT COMPANY**
KALAMAZOO, MICHIGAN
*World's Model Paper Mill*
Makers of bond and waxed papers and vegetable parchment

EGLIKE
COOK AND BAKE WITH EGLIKE
FROM THE MARWIN PRODUCTS OF OHIO
HEART
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EGLIKE
51% EGG
Cooking and Baking Compound
MAKERS
THE MARWIN FOOD CO.
MARION, OHIO.

**Be Ready For a Big Demand**

Youngsters will soon be back in school. They are going to need foods that will keep them keyed up to their best endeavors.

**EGLIKE**

Enables the homemaker to accomplish this without the use of eggs. It's the economical way of preparing foods.

Be sure you get Eglike. Most good jobbers sell it.

**The Marwin Food Co., Marion, O.**

# When Is an Egg Fresh?

THE Board of Chemists of Pennsylvania held a special conference recently, which lasted from seven o'clock in the evening until after midnight, in the office of Secretary Rasmussen of the Pennsylvania Department of Agriculture. There were present the following chemists: Dr. F. T. Aschman, Pittsburg; Prof. James A. Evans, Erie; Dr. William Frear, State College; Prof. Donald W. Huber, Harrisburg; Prof. James W. Kellogg, Harrisburg; Dr. Charles H. Lawall, Philadelphia, and Prof. Carl F. Schoen, Scranton. Director of the Bureau of Foods James Foust directed the conference.

Samples of eggs had been collected by Agent Simmers of the Philadelphia District, who had full data concerning every sample submitted. They covered a range of cold storage eggs of several ages, one day old eggs, western fresh eggs and eggs preserved by several well known methods used in household practice.

These samples were submitted under number only to the group of chemists, for decision as to their character, and in every case they were correctly classified for interpretation of the provisions of the newly enacted Fresh Egg Law.

As each sample was submitted the chemists individually made their decisions, which unanimously agreed in each case, and as each result was announced Mr. Simmers' facts regarding the origin of the particular sample were stated and were found to absolutely confirm the decision arrived at by the chemists as to the age and classification of the eggs.

The factors which are taken into account in classifying eggs as to their freshness are the size of the air space, the specific gravity, the condition of the white and of the yolk after opening, the appearance of the chalaza, besides various confirmatory chemical tests and cooking tests.

A fresh egg is one that is understood to have the following qualities:

Its white is capable of whipping well; in cooking it can be satisfactorily poached or soft boiled; it has not absorbed foreign disagreeable odors; its embryo shall not have developed appreciably; the yolk should be fairly stiff and well rounded, and the white should not be watery and the chalaza shall be well defined.

Eggs held in the warmer portion of the year lost their quality of freshness much more rapidly than in the colder months. Even when kept in a cool room they lose their quality of freshness in about three weeks.

With the present high prices of eggs it is only fair that the purchaser who asks for and pays for fresh eggs is entitled to receive them, and it was for this purpose that the Fresh Egg Law was enacted at the last session of the Legislature.

As soon as the State Printer is able to supply the Department with copies of the law, these will be distributed to the trade and to the public, after which time the law will be enforced.

---

*Can't Make Pets of Potatoes*—"So you've decided to have a garden this year instead of raising chickens."

"Yes; we used to get so attached to our fowls we couldn't eat them. One doesn't feel that way about potatoes and onions."—*Boston Transcript.*

THERE IS
CLEANLINESS, HEALTH
INSURANCE, ECONOMY
AND CONVENIENCE IN

Our **PET**
BRAND
**Evaporated Milk**

***The Standard of the World***

Wins and Holds Trade on account of its Superior Quality

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HIGHLAND, ILLINOIS
ORIGINATORS OF EVAPORATED MILK

Whiter—Sweeter—Lighter
Bread and Cake

The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

RUMFORD CHEMICAL WORKS,
Providence, R. I.

L.71 10.17

## Flavoring Extract Is Not a Beverage

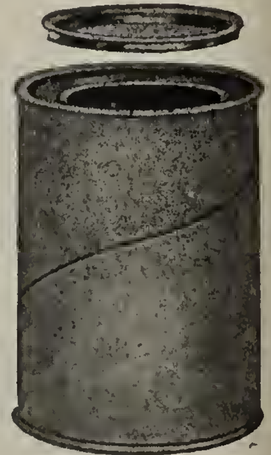
(Continued from Page 25)

whether flavoring extracts are "capable of being used as beverages" or not as at once determined when the question as to whether they are "potable" under the dictionary definition of "potable" is at the same time "capable of being used as a beverage." As a matter of fact, the words "capable of being used as a beverage" enlarge the meaning of the word potable. And if anything includes a *larger field of production* than would be included by the word potable, and *evidently these words were so intended.*

In section five of the prohibition act there seems to be a considerable amount of inconsistency for it states that flavoring extracts shall be exempted from the provisions of the law if they are non-potable and capable of being used for beverage purposes. From what has already been said regarding the potability of flavoring extracts and their capability of being used as beverages, it is apparent that the attempt of using these products would not exempt them if they are potable. It follows that they are non-potable and if they are capable of being used as beverages it follows, of course, that they are not incapable of being used as beverages. Apparently another endeavor has been made to provide relief in section six, the gist of which is that any product that is capable of being used as a beverage shall be classed as intoxicating liquor. This would seem to put the court in a position of proving that flavoring extracts are capable of being used as beverages. This, of course, might be possible, but while it is apparent, an idea here is conceived to protect flavoring extracts as a court might render a decision on an extraordinary case which would set a strong precedent.

Flavoring extracts are in the strict sense of the word potable, or capable of being used as beverages merely by the fact that they are in liquid form and can be taken into the stomach. However, the fact clearly remains that they are not intended or designed for use as a beverage or suitable for that purpose. They have been manufactured for flavoring purposes and have been so used for many years. It may of course be true that these products have been abused even in time when alcohol could be secured. However, we read in the papers the other day of several dying in a Southern town from drinking wood alcohol, yet is this a legitimate reason why wood alcohol should be withdrawn from the market? There will always be half-wits who will drink almost anything they can get their hands on and it would be absolute folly to attempt legislating for their protection. Every thinking man knows that these abnormal occurrences are impossible to control under the law, so why should a legitimate business be tampered with when there is such a small probability of abuse being made of it. It does not seem just or reasonable to pass laws that will burden, harass and seriously injure necessary and legitimate industries because of the misdeeds of a few degenerates.

The manufacture of flavoring extract is a long established, legitimate industry, in which millions have been invested. Flavoring extracts are a household necessity throughout the nation. Practically all desserts, ice creams, candies, soda water and many soft drinks are made more palatable because of flavoring extracts.



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**Paper Can Machinery** **Metal Package Machinery**
**Automatic Tin Can Machinery** **Soldering Machinery**
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***Catalogues on request***

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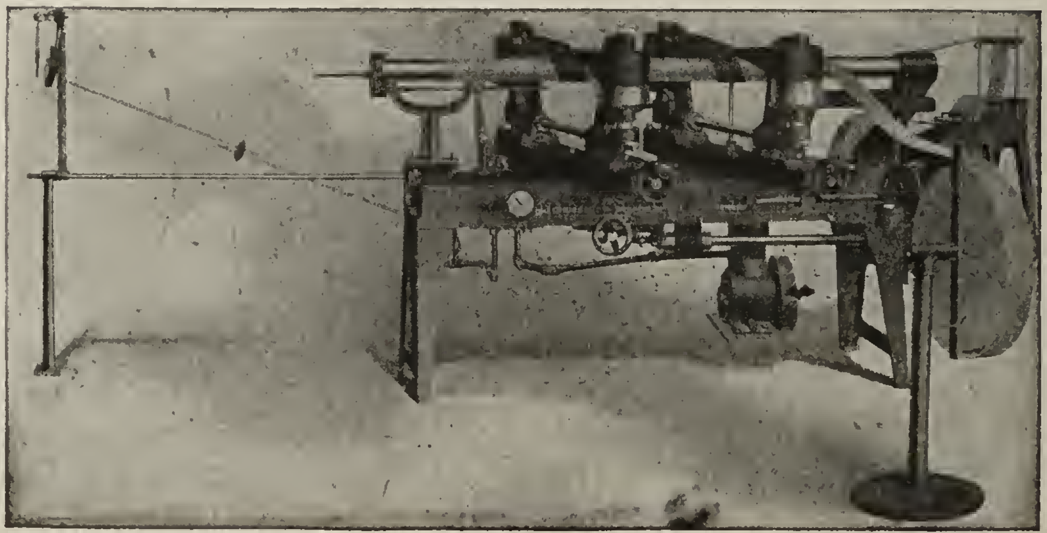

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and
# Foreign Market Analysis

*Frank Howard Tate*
*Director*

Detailed accurate reports on all foreign markets for American food products—food production machinery—food containers.

This survey is authoritative and comprehensive and includes in addition to requirements of the markets:—import duties; standards of quality; specifications regarding packing necessitated by climatic and transportation conditions; marking and branding regulations; methods of distribution; also principal foreign competition.

The Bureau service is under the supervision of trained experts thoroughly conversant with world markets and is designed to meet the requirements of all American producers and exporters.

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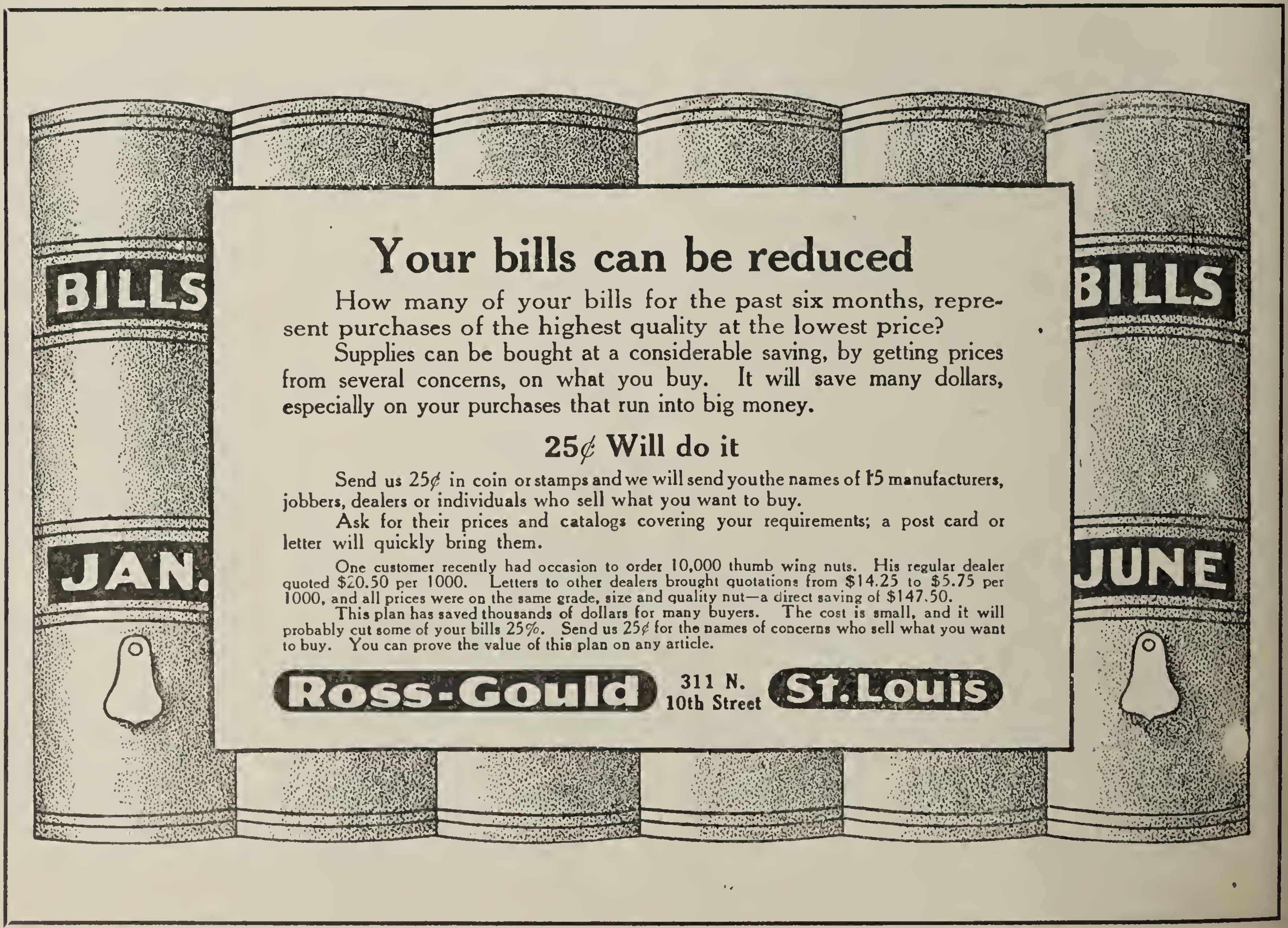

**Your bills can be reduced**

How many of your bills for the past six months, represent purchases of the highest quality at the lowest price?

Supplies can be bought at a considerable saving, by getting prices from several concerns, on what you buy. It will save many dollars, especially on your purchases that run into big money.

**25¢ Will do it**

Send us 25¢ in coin or stamps and we will send you the names of 15 manufacturers, jobbers, dealers or individuals who sell what you want to buy.

Ask for their prices and catalogs covering your requirements; a post card or letter will quickly bring them.

One customer recently had occasion to order 10,000 thumb wing nuts. His regular dealer quoted $20.50 per 1000. Letters to other dealers brought quotations from $14.25 to $5.75 per 1000, and all prices were on the same grade, size and quality nut—a direct saving of $147.50.

This plan has saved thousands of dollars for many buyers. The cost is small, and it will probably cut some of your bills 25%. Send us 25¢ for the names of concerns who sell what you want to buy. You can prove the value of this plan on any article.

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# Who Are the Best Judges of a Baking Powder?

Those whose profession and reputation depend upon their knowledge of the best baking materials. Among the first to use Ryzon and endorse it as the Perfect Baking Powder were domestic science experts and physicians.

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Ryzon is 40c for a full 16 ounce pound. There are also 15c and 25c packages.

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Hotel St. Regis
Hotel Vanderbilt
Hotel Martinique
Hotel Belleclaire
Hotel Gotham
Hotel Hamilton
Hotel Robert Fulton
Hotel Woodstock
The Knott Hotels
The Colony Club
Lambs' Club
New York Yacht Club
Midday Club
Bankers' Club
Montauk Club (B'klyn)
Aero Club
Catholic Club
Friars' Club
The Harvard Club
Masonic Club
Metropolitan Club
National Arts Club
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Yale Club
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**NEW YORK**

*The Ryzon Baking Book (original price $1.00) containing 250 practical home recipes, will be mailed, postpaid, upon receipt of 30c in stamps or coin, except in Canada. A pound tin of Ryzon and a copy of Ryzon Baking Book will be sent free, postpaid, to any physician who writes us on his professional stationery.*

**RYZON**
**THE PERFECT BAKING POWDER**

Study His Daily Food Need

The average man needs about 3000 calories of food per day. Most of that need is for energy food. But he also needs some 3½ ounces of protein, to build up and repair.

Figuring these elements only, here is what they cost at this writing in some necessary foods:

| Cost of Protein Per Pound | | Cost of Energy Per 1000 Calories | |
|---|---|---|---|
| In Quaker Oats | 63c | In Quaker Oats | 5c |
| In White Bread | $1.30 | In Round Steak | 41c |
| In Potatoes | 1.48 | In Veal Cutlets | 57c |
| In Beef, about | 2.00 | In Fish, about | 60c |
| In Ham | 3.63 | In Canned Peas | 54c |

*Ten Times the Cost*

Meat and fish foods, per 1,000 calories, average ten times Quaker Oats' cost.

So do some vegetables. Squash, for instance, at this writing costs 15 times as much.

As energy food, the oat has an age-old fame.

In protein—the costliest food element—it is richer than any other grain. It stands about equal with beefsteak.

In needed minerals—iron, lime, calcium, etc.—the oat is uniquely rich.

As an all-'round food, well balanced, the oat is the greatest that grows. As a food for growing children it holds the zenith place.

Other foods are needed. Children must have milk and eggs. Vegetables are necessary.

But start the day with Quaker Oats. Make it your breakfast. It costs but one-half cent per dish.

This will supply supreme nutrition, and the saving will average up the costlier foods at dinner.

Quaker Oats

*Extra Flavory Flakes*

Get Quaker Oats when you buy oat food. You owe that to yourself.

They are flaked from queen grains only — just the rich, plump, flavory oats. We get but ten pounds from a bushel.

You get this grade when you ask for Quaker, without extra price.

*57 CENTS*
*Per 1000 Calories*

*60 CENTS*
*Per 1000 Calories*

*Packed in Sealed Round Packages with Removable Cover*

THE AMERICAN FOOD JOURNAL

Vol. XIV SEPTEMBER, 1919 No. 9

Wm. G. Davies, Editor

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## Knowledge Is Power

"PERSISTENT industry and steady, conscientious saving must be depended upon to avert the national disaster which lurks in the cost of living issue," said President Wilson in a message recently given to the people. "Only increased production and real thrift," he said, "can be effective in reducing prices and bringing conditions back to a point where wages and the cost of necessities will be properly balanced."

This sounds ominous but it is so near the truth that one does not have to be a pessimist to acknowledge it, although there are many developments that are of real comfort to the optimist.

While the President's statement refers to all classes of necessities there is no doubt that the food problem is the greatest problem of the day and the one that is calling for the most expert attention and remedy.

What are the officials at Washington doing in regard to this situation?

What are the officials of the various states planning to do?

What is the trend of thought and the tendency of action on the part of the food manufacturers, food distributors and the public?

These are pertinent questions—questions on which the progressive men in all walks of life are looking for information. The situation is not for the consideration of the officials alone, it is a question on which all the people must combine if the correct answer is to be found.

The American Food Journal is making every effort to gather the news and print it so that its readers can have placed before them each month the latest developments in the food situation.

The convention of the Food Control Officials from the various states and the Health Officials from many of our largest cities which will be held in New York beginning Sept. 8th will bring together the men whose principal duty for years has been to deal with the food questions of the day. This convention is bound to bring out many ideas and expressions which will be of immense help in assisting the progressive man to form his opinions as to the correct method of procedure for the future.

The American Food Journal will have a representative in attendance at this convention so that its readers can receive a full report of what was said and done.

Close tab will be kept on Washington and you will be informed each month of the latest moves of the food administration, the Congressional action and other official developments.

How the big cities of the country handle the vast amounts of food that are necessary to feed the big populations will be told in a story in a near future issue of this magazine.

There is in course of preparation now a series of articles on the history of the various food products, the development of the particular branch of industry which has brought them to a place of prominence, etc., and this will be started in the very near future.

Because of the agitation in regard to food which has brought this subject to the attention of every man, woman and child of the country to a greater extent than ever before, the men who are in charge of the food control work in each of the states of the

(Continued on page 7)

Bubble Grains
Make other Foods Delightful

Like Puffed Nut Meats

Puffed Grains are breakfast dainties, but that's not all. Two are whole grains which supply whole-grain nutrition. All are food confections, fairy-like in texture, nut-like in their taste.

Puffed Wheat makes bowls of milk vastly more inviting. And milk with whole wheat, steam exploded, is the pinnacle in food.

Puffed Rice or Corn Puffs add to fruit a fascinating blend. The grains are fragile, flaky, flavory. They add to fruit what crust adds to a shortcake or to pie.

Crisp and butter them and these airy grains become nut-like confections. There is no between-meal dainty which compares with these.

Puffed Wheat | Puffed Rice | Corn Puffs
Each 15c—Except in Far West

Food Cells Exploded

Puffed Rice or Corn Puffs taste like puffed nut meats on ice cream. And home-made candies are made light and nutty by them. Puffed Wheat or Corn Puffs make flimsy toasted wafers for your soups.

In Puffed Grains we blast every food cell. Over 100 million steam explosions are caused in every kernel. Thus every granule is fitted to digest, and every atom feeds. These are the best-cooked grain foods in existence, and the most bewitching. If you believe in whole grains made wholly digestible, use them wherever you can.

Serve one of them in some way every day.

The Quaker Oats Company
Sole Makers

3179

**Few Gifts of Nature Have Proved More Useful to Mankind Than Corn—King of American Cereals**

**CORN STARCH**—edible, laundry, or lump, has grown to be a household necessity.

**CORN OIL**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. **Corn Oil** has made a distinct place in the home.

**CORN SUGAR**—has its place with the ice-cream manufacturer, the physician and the baker.

**CORN SYRUP**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

**American Manufacturers' Association of Products from Corn**

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American Maize Products Co., 135 William St., New York
Clinton Sugar Refining Co., Clinton, Iowa
Corn Products Refining Co., 17 Battery Place, New York
Douglas Co., Cedar Rapids, Iowa
J. C. Hubinger Bros. Co., Keokuk, Iowa
Huron Milling Company, Harbor Beach, Mich.
Keever Starch Company, Columbus, Ohio
Piel Bros. Starch Co., Indianapolis, Ind.
A. E. Staley Mfg. Company, Decatur, Ill.
Union Starch & Refining Co., Edinburg, Ind.

Union, while no more important now than before, are coming into greater prominence as the importance of their work is being recognized more and more. For that reason this Magazine will start a series of stories in the November issue which are designed to make the people of each state better acquainted with the men who are at the head of this work. These men are accomplishing great things, much greater than the average person realizes because but very little publicity has been given to their efforts, and these stories are bound to be of greatest interest to all who are interested in food subjects.

In addition to these special features this Magazine will publish each month articles bearing upon controversies in the food field; articles of special interest to food chemists and dietitians; interesting developments in the discoveries of new foods—in fact the magazine will present each month many pages of valuable information and interesting reading concerning food.

Just a word to those who buy the American Food Journal now-and-then to get some particularly interesting article—the May issue was over sold by over a thousand copies—that is, over a thousand copies were ordered beyond the number which we had on hand. This has happened with several issues during the last year and if you would be sure of getting the information you want you should subscribe to this publication and not depend upon the chance of being able to buy issues from time to time.

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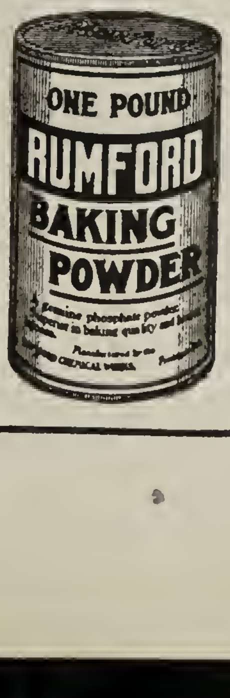

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**62 Welfare Building, Chicago**

# Food Control Officials Meet In Convention

## Inaugurate Conferences With Food Manufacturers' Organizations to Help Smooth the Way For Better Understandings

EVERYTHING is ready for the twenty-third annual convention of the American Dairy Food and Drug Officials, which will start Monday, Sept. 8th, at the Commodore Hotel, New York City.

Keeping abreast with the rapidly moving events of this epochal period a new movement will be started at this convention which promises far-reaching results in co-ordinating the efforts of officials and honest business men to give the consumer a fair deal when at the Friday session representatives of many food producer's and distributor's associations will meet with the food officials to plan ways and means of eliminating friction and misunderstandings.

For years many food control officials have realized that in dealing with the individuals in the various lines of food production and distribution their work was increased and the results were not entirely satisfactory because they were often called upon to settle petty difficulties, explain the laws and settle cases over and over again to individuals in the same lines of business. Practically every line of industry has an organization and the idea was born that by working with the organizations greater efficiency in the enforcement of regulations and better understanding could be arrived at.

In accordance with this idea forty-two trade associations were invited to send representatives to the Friday session of the convention. Many acceptances have been received and this meeting promises to be one of the most interesting and productive of good results of any of the gatherings.

At this meeting an effort will be made to have the trade associations appoint committees which will take up the difficulties of the individual members of the associations, analyze them and decide upon the important features on which the food control officials will be asked to decide or take action. Representatives of the food control officials will then be called upon for action and the results of their action will be communicated to all of the members of the trade organizations.

Of course, nothing in this movement will prevent the individual manufacturer from going directly to the food control officials when he thinks he has cause to do so, but it is hoped that by dealing with representative committees of the organizations the officials may be freed from many of the repetitions, an effort which now takes much of their time. It is also hoped that this will prove to be an effective method for bringing about the standardization of food regulations and methods of enforcement in the various states and thus free the manufacturers and distributors of the annoying and, at times, costly necessity of having to conform to different regulations in different states.

*The annual convention of the Dairy, Drug and Food Officials is one of the most important events of the year for the manufacturer of food, the distributor of products and the teacher of food subjects, as well as for those whose duties as public officials brings them in daily contact with the food problems of the day. To these people a full knowledge of what was done and said at these meetings is of great importance.*

*For this reason The American Food Journal will give to its readers in the October issue a complete story of the convention activities and will print in the October or succeeding issues many of the important addresses which were made during these sessions. William G. Davies will attend all of the meetings of the convention in New York and will report the proceedings for this magazine.*

In inviting the health and sanitation officials of the large municipalities to this convention another innovation is introduced. It is recognized that the work of these officials crosses and recrosses the activities of the health control officials at many points and for that reason the co-operation of the two branches of governmental activities for public welfare is to be fostered.

The program, as announced in the last issue of this magazine, has been revised and changed, as word was received from various officials that they could not attend or as it was deemed advisable to change the subjects assigned. The program, which follows, has been revised and is as it will be given out in printed form at the beginning of the sessions.

The educational tours arranged for Wednesday and Thursday will include trips through the large baking plants, sugar refineries and other large food-producing establishments and chemical laboratories. Perhaps one of the most interesting and profitable tours will be the trip to the railroad terminals where the visitors will have an opportunity of glimpsing the immense stocks of food that roll into New York every night and the methods of getting them ready for distribution.

The following is the revised program:

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**MONDAY, SEPTEMBER 8, 9:00 A.M.**

**Open Meeting**

**Invocation**

**Address of Welcome**

By Dr. Royal S. Copeland, *Commissioner of Health,* New York City.

**Response to Address of Welcome**

By Harry L. Eskew, *Commissioner, Department of Food and Drugs, State Board of Health,* Tennessee.

**Appointment of Credentials Committee**

**Report of Secretary**

By John B. Newman, *Superintendent, Division of Foods and Dairies,* Illinois.

**Report of Treasurer**

By George J. Weigle, *Dairy and Food Commissioner,* Wisconsin.

**Posting of Amendments to Constitution and By-Laws**

**Offering of Resolutions**

**Appointment of Committees**

**Adjournment for Luncheon**

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**Afternoon**

**Open Meeting**

**Report of Committee on Credentials**

**The President's Address**

By Benjamin L. Purcell, *Dairy and Food Commissioner,* Virginia.

**The Necessity for Medical Examination of Employees of Food Manufacturing, Storing and Dispensing Establishments**

By Dr. Royal S. Copeland.

**Important Lessons Taught by Court Decisions Relative to the Enforcement of the Food and Drug Law**

By George L. Flanders, *Counsel, Division of Agriculture,* New York State.

**Food and Drug Legislation During This Year, What It Seeks to Do**

By A. M. G. Soule, *Chief, Bureau of Inspection,* Maine.

Discussion by E. L. Barnhouse, *Food and Drug Commissioner,* Missouri.

**Artificial Coloring in Foods**

By James Sorenson, *Dairy and Food Commissioner,* Minnesota.

Discussion by Thomas Holt, *Dairy and Food Commissioner,* Connecticut.

**Relation of Sanitation of Foods to Public Health**

By Dr. Arthur Williams, *Food Controller,* New York City.

### TUESDAY, SEPTEMBER 9, 9 A.M.

**Open Meeting**

**What is the Effect of the National Food Law Enforcement on the Efficiency of the State Department Control**

By Guy G. Frary, *Food and Drug Commissioner,* South Dakota.

Discussion by W. B. Barney, *Dairy and Food Commissioner,* Iowa.

**Food Sanitation in Army Camps**

By Dr. Lucius P. Brown, *Director Food Bureau,* New York City.

**Municipal Food and Drug Control, Its Function and Scope**

By Dr. F. C. Blanck, *Food and Drug Commissioner,* Maryland.

Discussion by Wm. W. MacDonell, M. D., *City Health Officer,* Jacksonville, Fla.

**State Food Control**

By Dr. E. F. Ladd, *Food Commissioner,* North Dakota.

Discussion by W. G. Tice, *Chief Chemist, Bureau Foods and Drugs,* New Jersey.

**Federal Food and Drug Control**

By W. G. Campbell, *Assistant Chief, Bureau of Chemistry, U. S. Dept. of Agriculture.*

Discussion by Thomas Gault, *Dairy and Food Commissioner,* Ohio.

**Economy of Distribution**

By Roy D. Potts, *Specialist in Marketing Dairy Products, Bureau of Markets, U. S. Dept. of Agriculture.*

**Good Eggs, State and Interstate**

By Dr. Mary E. Pennington, *Chief, U. S. Food Research Laboratory,* Philadelphia.

**Standardized Milk**

By Julius Hortvet, *State Analyst.* Minnesota.

**Adjournment for Luncheon**

**Afternoon**

This period reserved for Educational Tours arranged by the New York Committee.

**Evening**

Trip to sea shore and shore dinner, by courtesy of the New York Committee.

### WEDNESDAY, SEPTEMBER 10, 9 A.M.

**Open Meeting**

**Sanitary Law and Its Effectiveness in Sanitation of Foods**

By Cassius L. Clay, *State Analyst,* Louisiana.

Discussion by J. M. Moore, *Supervisor, Division of Foods, Feeds and Drugs,* Alabama.

**State Drug Control—Present and Future**

By R. E. Rose, *State Chemist,* Florida.

**The Inspection Service of the National Canners' Association**

By Frank Gerber, *President, National Canners' Association,* Fremont, Michigan.

**Recent Progress in Research Work Relative to Canned Goods**

By Dr. D. F. Bigelow, *Chief Chemist, National Canners' Association,* Washington, D. C.

Discussion by Dr. B. J. Howard, *Bureau of Chemistry, U. S. Dept. of Agriculture. Microscopist in Charge, Microchemical Laboratory.*

**Food Containers and Utensils**

By Dr. Carl L. Alsberg, *Chief, Bureau of Chemistry, U. S. Dept. of Agriculture.*

Discussion by W. D. Collins, *Bureau of Chemistry, U. S. Dept. of Agriculture.*

**Some Food Market Problems**

By Dr. Eugene H. Porter, *Commissioner of Foods and Markets,* State of New York.

**Municipal Milk Control**

By Ernest Kelly, *Chief, Market Milk Investigations, Bureau of Animal Industry, U. S. Dept. of Agriculture.*

Discussion by Ole Salthe, *Supervising Chief Food Inspector,* New York City.

Adjournment for Luncheon.

**Afternoon**

This period reserved for Educational Tours arranged by the New York Committee.

**Evening**

**Association Dinner**

Erickson F. Bushnell, *Toastmaster.*

Speakers, A. C. Monagle, Dr. Carl L. Alsberg, Benjamin L. Purcell, and Bolivar J. Loyd.

### THURSDAY, SEPTEMBER 11, 9 A.M.

**Open Meeting**

**Publicity in Food and Drug Control**

By James Foust, *Chief, Bureau of Foods,* Pennsylvania.

Discussion by Harry L. Eskew, *Food and Drug Commissioner,* Tennessee.

**Necessity for Counsel for Food Administrative Officers and Necessary Legal Machinery for the Enforcement of Dairy, Food and Fruit Laws**

By F. L. Woodworth, *Food and Drug Commissioner,* Michigan.

**Address**

By Arjay Davies, *President, National Wholesale Grocers' Association.*

**Food Control from the Standpoint of Human Nutrition**

By Dr. E. V. McCollum, *Johns Hopkins Hospital,* Baltimore.

**Beverages—Intoxicant and Non-Intoxicant**

By William Frear, *State Chemist,* Pennsylvania.

**Bottled Soda Waters**

By W. W. Skinner, *Chemist in Charge, Water Laboratory, Bur. Chem., U. S. Dept. of Agriculture*

Discussion by W. F. Hand, *State Chemist,* Mississippi.

**Duties of a State Bureau of Markets**

By Guy C. Smith, *Director, Pennsylvania Bureau of Markets.*

Adjournment for Luncheon.

**Afternoon**

This period reserved for Educational Tours arranged by the New York Committee.

**Evening**

Tour of New York Terminals connected with the distribution of the food supply of New York, under guidance of New York Committee.

### FRIDAY, SEPTEMBER 12

Entire day reserved for receiving communications from representatives of national associations of manufacturers, storers and distributors of food, dairy and drug products.

### SATURDAY, SEPTEMBER 13, 9 A.M.

**Executive Session**

**Report of Commitee on Co-operation**

**Report of Committee on Definitions and Standards**

**Report of Committee on Resolutions**

**Round Table Conference of Municipal Control Officers**

**Round Table Conference of National and State Control Officers**

**Election of Officers**

**Presentation of Invitations for Next Convention**

**Plans for Next Convention**

> *No greater tribute to the high standing and influence of the Food Control Official of this country could be paid than that voiced by the business men of New York City when they urged the officials to hold their convention in America's metropolis.*
>
> *Because of the congestion of population and the immense quantities of food necessary to feed this great community it has long been recognized that unusual means for facilitating the distribution of food and for protecting the people against unsanitary or careless methods of handling must be devised and carried out.*
>
> *Plans were made but their successful carrying out has been made difficult by the indifference and ignorance that has been met with. To help overcome these obstacles the business men of New York urged the food officials to hold their meetings in that city. They believed that the importance of this convention and the publicity which its sessions will give to the various phases of the pure food movement will result in great good to the people of the city of New York.*

## Public Health Convention

Following is the preliminary program of the Food and Drug Section of the American Public Health Association, which is to be presented at the New Orleans meeting, October 27-30. The final program will be published in the American Journal of Public Health appearing October 7, or may be had upon application after that date to the secretory at 169 Massachusetts Avenue, Boston, Massachusetts.

## Program of the Section on Food and Drugs

*Chairman,* Mr. Hermann C. Lythoge, *Boston, Mass.*

*Vice-Chairman,* Fred C. Blanck, M. D., *Washington, D. C.*

*Secretary,* Prof. James O. Jordan, *Boston, Mass.*

Correspondence concerning this Section is to be addressed to the program chairman, Harry W. Redfield, M. D., Bureau of Chemistry, Washington, D. C.

Relations of Plane of Nutrition to Public Health. E. V. McCollum, *School of Hygiene and Public Health, Johns Hopkins University.*

Problem of Adequate Milk Supply. Henry C. Sherman, *Professor of Food Chemistry, Columbia University, New York City.*

Future of Food and Drug Control: Needed Developments. Carl L. Alsberg, Ph.D., *Chief, Bureau of Chemistry, Washington, D. C.*

Uses, Possibilities and Limitations of Bacteriology in Food Control. E. O. Jordan, *Professor of Bacteriology and Hygiene, University of Chicago, Chicago, Ill.*

Organization of Control of Pasteurization. F. O. Tonney, M. D., *Board of Health, Chicago, Ill.* Discussion: By E. O. Jordan, *Chicago.*

What Should Be the Basis of the Control of Dehydrated Foods? Prof. Samuel C. Prescott, *Massachusetts Institute of Technology, Boston, Mass.*

Discussion: By E. V. McCollum, M. D., *Baltimore.*

Effect of Self-Imposed Inspection of the Trade on Quality of Canned Foods. H. M. Loomis, *National Canners Association, Washington, D. C.*

Purpose and Function of Commercial Control Laboratories. L. M. Tolman, Chief Chemist, *Wilson and Company, Chicago, Ill.*

Army Food Supply, Specifications and Standards, Inspection and Control. E. L. P. Treuthardt, *Captain, Subsistence Division, Inspection Branch, Quartermaster Corps, Washington, D. C.*

Federal Meat Inspection. John R. Mohler, M. D., *Chief, Bureau of Animal Industry, Washington, D. C.*

State and Municipal Meat Inspection. John R. Mohler, M. D., *Chief, Bureau of Animal Industry, Washington, D. C.*

Results Obtained by Combining a Number of Insanitary Slaughter Houses into One Central Abattoir with City Inspector. Hon. Ed. H. McCuistion, *Mayor, Paris, Tex.*

A Model Law for City Meat Inspection. W. Parker Jones, *Washington, D. C.*

The Country Slaughter House: How It Should Be Constructed. George H. Parks, *Bureau of Animal Industry, Washington, D. C.*

The Proper Handling and Refrigeration of Meat from the Time It Leaves the Packers' Hands until Consumed. Louis D. Hall, *Bureau of Markets, Washington D. C.*

# Wooden Dishes For Bulk Foods Stand Severe Sanitary and Economy Tests

THE war and the high-cost-of-living agitation have both been strong factors in aiding the cause of those who advocate the sale of foods in bulk rather than in packaged form on the theory that more can be had for the money if the goods are purchased in bulk and thus be a help in reducing the high cost of living. From time to time this proposition has been brought forward and always it has met a strong opposition from those who maintain that the cleanliness, convenience and facility of handling goods which have been factory packaged offsets the difference in cost.

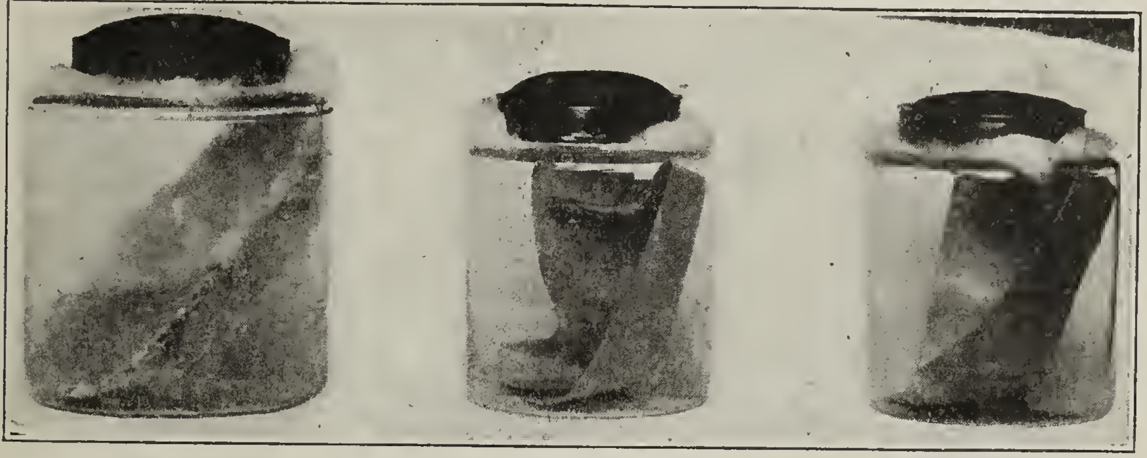
Be that as it may a most interesting series of experiments have recently been made by the Tri-State Chemical Laboratories of Toledo on behalf of the manufacturer of wooden dishes to determine the value to the housekeeper from the standpoint of economy and sanitation. Clarence Rex, a member of the American Health Association supervised and directed the experiments and the results given herewith are the findings reported by him to the wood receptacle manufacturers.

The chemist who had the work in charge first sought to discover whether or not the materials of which the various dishes and containers for food were made contained deleterious substances which might contaminate the food placed in them. To learn this packages of dishes or food receptacles were ordered just as they come from the manufacturer. Samples of two kinds of paper dishes, wood pulp dishes and wooden dishes were secured.

The dishes came from a wholesaler in Toledo and the paper arrived at the laboratory in packages, the contents of which were nested one within the other, the package being wrapped in thick paper, the edges being sealed with glue. The wood pulp dishes came nested in a similar manner but the wrapping paper protected only the sides of the pile of dishes. The wooden dishes were received nested and wrapped in paper and two stacks contained in a box.

It was noted on the arrival of these goods from the place where they were ordered that the paper packages were in some cases broken in the process of transportation and some of the dishes were thus exposed to contamination. Those coming in the boxes arrived in apparently as good condition as when they left the factories.

On arrival at the laboratory the packages were opened carefully and dishes selected from the center of each package. The dishes were picked up with sterile forceps, immersed in sterilized milk and placed in sterile glass jars which were covered. The milk was used simple as a growing medium for any organisms that might be in the dishes.



Note Mould Formed on Dishes

When these jars containing the dishes were set aside to permit the organisms in the material of the dish to grow, it was noted that one paper dish produced a fungus growth that entirely filled the glass jar. Another paper dish produced a growth of varied colors showing the presence of different bacteria. The wood dishes are reported to have come through the experiment with only small particles of mould apparent.

An experiment was then made to determine the presence of bacteria on the surface of the various kinds of dishes. To arrive at this the dishes were taken from the packages with the same precautions as were used in the other experiments. A dish from each package was placed in a wide mouth glass bottle which had been sterilized and which contained 100cc. of sterile water and sterile shot. The bottles were then agitated in such a manner that the dishes received a thorough washing. The washings were then examined and the findings recorded according to the methods recommended by the Public Health Association. In the report dish A and dish B were paper dishes which had evidently been covered with some material to render them waterproof as the water was filled with a greasy substance which came from them. Dish C represents a wood pulp dish and D a wood dish..

One cc. 0.1 cc and 0.01 cc were placed upon nutrient agar and incubated for four days at 25 degrees C and at 37 degrees C, and upon Wort Agar incubated for four days at 25 degrees C. Inoculations were also made into tubes of dextrose fermentation broth, lactose bile, and shake cultures in dextrose agar all of which were incubated for four days at 37 degrees C.

All tubes of lactose bile showing gas were investigated for B Coli types by plating on the ordinary kinds of differential media.

In two instances the B Coli were found. This organism was detected in lactose bile, 1 cc dilution, in case of dishes B and C. Other organisms present were found to be chiefly staphylococci, diplococci, cromogenic organisms, schizomycetes and moulds.

The number of organisms per dish after four days incubation ranged from a minimum of 50 in the case of dish D to 900 in the case of dish C. (See Table 1.)

Incubation of gas producing organisms showing positive results in dextrose fermentation broth in the cases of A, B and C. Nothing was found in the case of dish D. (See Table 2.)

B Coli type were present in lactose bile in the case of dishes B and C only. (See table 2.)

Positive results were apparent in all dishes in Dextrose Shake Agar. (See table 2.)

Number of moulds developed per dish after six days incubation on Wort Agar at 25 degrees C ranged from 1, in the case of dish D, to 1600 in the case of dish C. Development of moulds in the case of dish C was to a certain extent phenomenal, and of such peculiarity that photographic results of this experiment are shown herewith.

A series of experiments were then performed to determine how much food is lost to the purchaser by absorbtion by the dish in which it is placed at the grocery store or meat market. In all of these experiments so called "butter" dishes, the kind familiar to everybody who has purchased bulk food, were used.

Every available kind and make of these "butter" dishes was secured in original packages just as they come to the retailer from the manufacturer or wholesaler.

Dishes Showing Mould Formation

The following is the report rendered by the laboratory workers showing the methods used and the results attained.

All experiments were conducted on the size designated by the manufacturers at the one-pound dish. This was found to be the size used to the greatest extent in the retail stores in this city, and upon further investigation found the same thing to prevail in most other cities of the United States. This investigation has dealt principally with the absorption of the food product by the dishes in question. In carrying out this work we have adhered to methods which would be considered good commercial practice. We have designated the dishes by letters as follows:

Showing How Dishes Absorb Food

A—Representing a paper dish.
B—Representing a paper dish.
C—Representing a wood pulp dish.
D—Representing a maple wood dish.

A and B are paper dishes of different manufacture, and appear to have been treated with a water-proofing, which has little or no effect in preventing the absorption of either moisture or the food product.

ABSORPTION OF WATER

A series of dishes were first weighed and placed in a porcelain vessel containing distilled water, temperature, 77 degrees F, for 15 minutes. The dishes were then removed and suspended in air at room temperature for 20 minutes, to allow all of the water which would drip from the dishes to be removed. They were then re-weighed to determine the actual amount of water each dish was capable of absorbing and holding. (See table 1.)

There is a striking contrast in the capacity for absorption in this series of dishes, and the results of this absorption, inasmuch as juices and liquid portions or the moisture of food products are considered a part of the product and have a distinct food value.

ABSORPTION OF FOOD

During the month of August all the different kinds of dishes described and shown in this report were purchased in original packages from wholesale dealers in this city. These dishes were then properly marked and weighed. They were then distributed to grocery and delicatessen stores in different parts of the city. These dishes were then used as the containers for the delivery of food ordered by us, composed of such articles of food as we found by investigation were being dispensed in such containers. All orders were delivered to the Laboratories by the method provided by the persons and firms from which purchases were made. The average time consumed in delivery was about two and one-half hours.

As soon as samples were received at the Laboratories, typical dishes were arranged in sets of three and photographs made, showing the ac-

(Continued on page 34)

**Results of the Bacteriological Examination of Different Dishes on the Market for the Dispensing of Food Products**

Table No. 1

| | Number of Organisms per Dish After 4 Days Incubation on | | | Number Moulds Developed per Dish After 6 Days Incubation on Wort Agar at 25 Deg. C. |
|---|---|---|---|---|
| | Nutrient Agar at | | Dextrose Shake Agar at | |
| | 25 Deg. C. | 37 Deg. C. | 37 Deg. C. | |
| Dish A | 400 | 400 | 300 | 20 |
| Dish B | 700 | 500 | 640 | 40 |
| Dish C | 900 | 500 | 480 | 1600 |
| Dish D | 70 | 90 | 50 | 1 |

Table No. 2—Gas Producing Organisms

| | Incubated 4 Days at 37 Degrees C. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Dextrose Fermentation Broth | | | Lactose Bile | | | Dextrose Shake Agar | | |
| | 1 cc. | 0.1 cc. | 0.01 cc. | 1 cc. | 0.1 cc. | 0.01 cc. | 1 cc. | 0.1 cc. | 0.01 cc. |
| Dish A | x | | | | | | x | x | |
| Dish B | x | | | x | | | x | | |
| Dish C | x | x | | x | | | x | x | |
| Dish D | | | | | | | x | | |

# The Manufacture of Tomato Paste

*J. H. Shrader, Ph.D.*

*(Chemical Technologist, Bureau of Plant Industry)*

TOMATO paste is the concentrated pulp of tomatoes, freed from cores, skins and seeds, evaporated down to a pasty mass. It bears the same relation to tomato puree and tomato pulp that the well-known brands of canned soups and condensed milk do to their respective finished products—"add hot water and serve." However, in some cases, particularly in Italian dishes, the paste is used as such without any subsequent diluting.

When one considers that tomatoes contain on an average about 95 per cent water and that the consumer is paying freight on this water, is buying water at the price of tomatoes and is wasting other valuable commodities (to be discussed later), he can realize the economic importance of giving this matter of a concentrated tomato product some consideration.

### In Italy First

In the first place, tomato paste is nothing new. Italy, the home of a high development of tomato technology and consumption, is the birthplace of this phase of the tomato industry. For years she has been exporting this product in enormous quantities (13,000-20,000 tons per annum), primarily, of course, to Italian settlements, who were naturally the only ones conversant with its use. Due to the conditions of labor and material abroad prior to the war, ably seconded by our low tariff policies, it was almost hopeless to look for an American industry in this product. But with the embargo on exports of foodstuffs from Italy, together with shipping difficulties, the Italians the world over found themselves cut off from this essential constituent of their justly renowned sauces. A few Italians in this country endeavored in a small way to enter the field, but lack of the necessary capital, as well as the equally necessary technical skill, precluded them from making much of an impression on the market. Then it was that wide-awake and progressive American food manufacturers entered the field. The summer of 1916 was the period of our great activity in taking up this line of manufacture. The technologists then engaged on this problem are still learning more about it, for though its succesful manufacture is apparently simple, in reality it possesses pitfalls for the unwary which are ruinous. Some of these I shall discuss.

Roughly outlined the process of manufacture is as follows: Tomatoes are thoroughly washed, then pulped in suitable apparatus and freed from cores, skins and seeds, just as in the manufacture of tomato ketchup and tomato pulp. The resulting mass is termed tomato juice. This juice is then evaporated by various means to a pasty consistency, the degree depending on the name, selling price and other commercial features of the finished goods. When concentrated in the ratio of 2 to 1, the product is called tomato pulp, when concentrated about 2½ to 1 or 3 to 1, it is tomato puree; about 5 to 1 tomato paste (salza); 10-12 to 1, double concentrated (estratta). The product is then packed into small cans (6 oz.), sealed and sterilized. In view of the fact that most of the food value which tomatoes possess seems to consist in their content of sugar and acid, it is evident that these solids are in no way affected by evaporation of the attendant water, and that dilution of the finished product with water will restore the goods to their original condition. The red coloring matter is likewise non-volatile and remains behind in the fibrous fleshy part of the tomato juice for the juice consists of an almost colorless "whey" carrying in suspension the ground up flesh of the tomato, this fleshy part is enmeshed the color grains, for this pigment is insoluble water.

### Keeping Color

Now this pigment is an extremely delicate compound called lycopin. Exposure to heat, or air, or tannin, or iron causes it to burn a dirty brown, dependent on the degree of exposure. This is where a source of industrial difficulty enters: namely, to concentrate without impairing the color. This may seem a secondary consideration, but when one considers that the chief value of tomatoes lies in their condimental value, it becomes patent why they should be manufactured with care. As a tomato ketchup and a tomato soup are far more appetizing when of a rich red color, so is tomato paste.

In the first place, to secure a first-class product, it is absolutely necessary to start with good stock. To endeavor to make a rich red product from unripe green tomatoes or from yellowish blighted ones, however skilful the manufacturing process, will never win out in the long run. As the war is over and commercial rivalry is again coming forward, inferior grades can not compete. In view of the fact that the Italian tomato is much redder and otherwise more adapted for paste manufacture than the American tomato, it behooves our factories to put out the very best product possible in order to stay in the market when the fight is on. Some of our manufacturers are doing it. All can.

### Thorough Washing

The next step is to wash the tomatoes thoroughly. A step so apparently simple is apt to be overlooked. It has a triple significance: (1) that the goods can be properly inspected for removing the unsound; (2) that they may be sanitary and otherwise clean; and (3) that the broker may not use the presence of traces of grit to reject a shipment. No one likes to get a bit of grit between his teeth. And yet this is one of the great difficulties in paste manufacture. Due to the high ratio of concentration of paste, a given percentage of grit going through the washer adhering to the tomato will be greatly evident when the juice is concentrated to paste, while if just pulp or ketchup was being manufactured the grit would be negligible. This is, of course, merely a matter of concentration.

Subsequent to the washing, inspection of the stock and removal of all rotten goods must be rigidly enforced. Not only is this expedient on ethical grounds, but the activities of the Bureau of Chemistry in enforcing the Food and Drugs Act rightly render the path of the manufacturer who is careless in this respect a rough and rocky one. There is no doubt that a relation exists between the microscopical "count" of a product and its content of rotten stock.

From here approved practice diverges, but after all it is dependent on the quality of product desired. If yield of juice is the first consideration and quality secondary, then the tomatoes are broken up by steam into a pulpy mass and then cycloned (see later). If, however, the quality is the first consideration, then the cycloning is practiced on the unheated raw tomatoes. When heated, the entire tomato is softened which results in a cleaner separation of skin and seed. But this softening operates at the same time on the green portions about the stem and core and also extracts tannin and other objectionable products from the bits of stem and leaves, yielding more juice but poorer in color and flavor. Unheated, the greener portions are removed with the cores and seed, thus decreasing yield, but obtaining a redder and better flavored product.

### Tomato Pulper

A cyclone machine which pulps the tomatoes is a horizontal perforated cylinder, provided with a paddle rotating on the horizontal axis of the cylinder. The blades of the paddle just clear the cylinder along its entire length. The tomatoes are fed into a hopper at one end of a cylinder, and on entering, are caught by the rotating paddle which breaks them up and forces all juice and flesh through the perforations, while the seed, skins and cores pass continuously out of the other end. In other words, the paddle performs the same function of the housewife's hand or masher when she forces tomatoes or other soft fruit through a collander. These machines are operated by power, rotate about 400 revolutions per minute and can often handle two thousand bushels in a ten-hour working day.

In view of the discussion above regarding the sensitiveness of the pigment to heat and air, it follows that at this stage technical questions enter concerning methods of concentrating the juice. Presumably vacuum evaporation is the solution. And in general it is, but at the same time open air concentration can give a splendid product when performed correctly.

One can only expect the best results to be achieved with vacuum pans when one uses a pan designed specifically for tomato juice reduction. It should be constructed of some substance which tomato juice will not attack readily, or at any event will not react adversely within the sense of imparting a harmful taste or color. Iron is thus prohibited. Aluminum is far too readily attacked by the acid juices. Enameled steel is certainly most resistant to corrosion, but it insulates the boiling juice too effectively from the heating surfaces when the latter are steam jackets. This leaves copper as the best known and most widely used material for vacuum pan construction. A special iron-silicon alloy furnished by the manufacturers was tested out in this particular and found singularly resistant. But it is extremely brittle and difficult to machine.

A vacuum pan for tomato juice concentration should be provided with a high entrainment and a catch-all return, trap. Like condensing milk, tomato juice, when first introduced into the pan, foams excessively. However, on proper coaxing it along by applying as much steam as possible without letting the mass foam over into the entrainment, the air is soon boiled out and the mass settles down to an even boil. As this phase approaches, more steam is turned on until it is boiling as effectively as the system will economically stand, considering the limitations of the entrainment and condensing facilities.

A most effective means to prevent foaming is to either bring the mass of juice to a boil just before introducing into the pan whereby the air is removed and hence the cause of the foaming, or adding a little cottonseed oil into the pan when starting a batch. The oil operates to keep down the foam. Half a glass full of a 150-200 gallon batch is ample.

### Pan Operation

The pan is operated as follows: Closing all outlets, the suction pumps are started and the pan evacuated of air. The juice is then allowed to run in. When the steam jacket is about one-third covered, steam is gradually turned on with the juice still entering. By the time the jacket is about three-quarters full, the juice should be boiling. The agitation of the boiling now causes the juice to cover the jacket. As soon as the coils are covered, steam may be slowly and gradually turned into them until all is operating normally. The incoming stream of tomato juice is then throttled down until the rate of evaporation and entry of juice is about equal. This is to keep the boiling level constant. If the heating surfaces become exposed, the charge is liable to burn on to them. If a batch starts to foam over, it may be caught by momentarily breaking the vacuum by opening the vacuum-release valve. The boiling surface immediately drops, the foam is broken and the mass boils quietly.

A high vapor space is necessary to provide not only against loss due to excessive initial foaming in the earlier stages of manufacture, but also the more serious loss through entrainment of droplets of juice when the mass begins to thicken. Due to the rapid increase in viscosity and later pastiness which develops as concentration progresses, the vapor in seeking to escape, emerges from the boiling mass in so-called explosive bursts which causes the product to spatter badly. If the rate of ebullition is too great, the speed of the vapors in escaping through the entrainment mechanically carry along the light spray in the earlier stages of evaporation and the spattering masses of paste in the later stages. Thus the boiling chamber must be high.

### Vapors Must Escape

Too narrow an entrainment or vapor pipe is to be avoided. Inasmuch as all vapors generated must escape, it follows that the smaller the entrainment the greater will be the speed of the vapors. In fact, a mass can be made to boil too fast for the vapors to be readily carried off. Drop in vacuum results.

With regard to the heating appliances, a steam jacket supplemented with steam coils gives the best service for all around work. A steam jacket by itself does not possess enough heating surface to give a great enough evaporating rate, while coils alone are not so readily controlled. A steam calandria or drum, such as is used in the evaporation of sugar syrups, caustic liquors, and other such large industrial instillations, while excellent in many ways, possesses drawbacks which render such equipment inadvisable for tomato paste manufacture. In the first place, they require an excessively high boiling chamber and entrainment necessitated by the great tendency to foam during initial heating. Then when the mass begins to get pasty, the circulation through the tubes is liable to become sluggish. If this develops and the mass sticks to the heating surfaces, it burns to a leathery consistency and becomes as great a task to clean as a tubular boiler. To distribute the steam effectively through the nest of tubes to insure even boil is also very difficult. When one adds to the above objections the fact that the boiling level of the charge must be always kept above the calandria, it follows that no small batches can be worked.

In any event, no heating surfaces can be exposed above the level of the boiling mass without danger of the latter burning on. Hence, a low jacket, and a steam coil in sections

(Continued on page 35.)

# How the State Controls the Cold Storage Industry

## Commissioner Porter Tells How the Cold Storage Laws Operate in the State of New York to Protect the Public and Honest Storage Man

In order that the reader may have a clear idea of what a cold-storage warehouse is for, and what it may or may not do, let us take a concrete case of a man who wishes to invest his money in such a plant where the opportunities seem to be wonderfully good. He consults architects and cold-storage engineers, and in due course of time his plant is ready for business.

In the meantime, Jones (as we will call our friend) has informed himself as to what, as a cold storage man, he may or may not do, by writing to Dr. Eugene H. Porter, Commissioner of Foods and Markets in Albany, and obtaining a copy of the laws under which his future business will be operated.

The first thing he finds out is, that, in order to do business, he has to take out a license and an application for such license has to be made in writing to the department on or before September first each year. Then, if upon inspection of his plant, it is found to be sanitary and suitable for cold storage purposes, a license will be issued to him each year, on payment of $25 to the treasurer of the state.

The definition of the term "food," as used by the law covering cold storage, includes any article, except nuts, fruits, cheese and vegetables, used as food by man or beast and every ingredient of such article. Thus Jones sees that his chances for service are almost unlimited. He could accept apples, butter, fish of all kinds, cheese, eggs, beef, pork, both pickled and salt, lard, lamb, and mutton, turkeys, fowls, and many other things. He finds it to be unlawful, however, for him to receive for storage any kind of food unless such food is in an apparently pure and wholesome condition and unless, moreover, the food or package containing the same is branded, stamped, or marked in some conspicuous place, with the day, month, and year when it was received for storage. In addition to this, he learns that every time an article of food is *taken out* by a customer, the date of removal has to be branded, stamped, or marked on it.

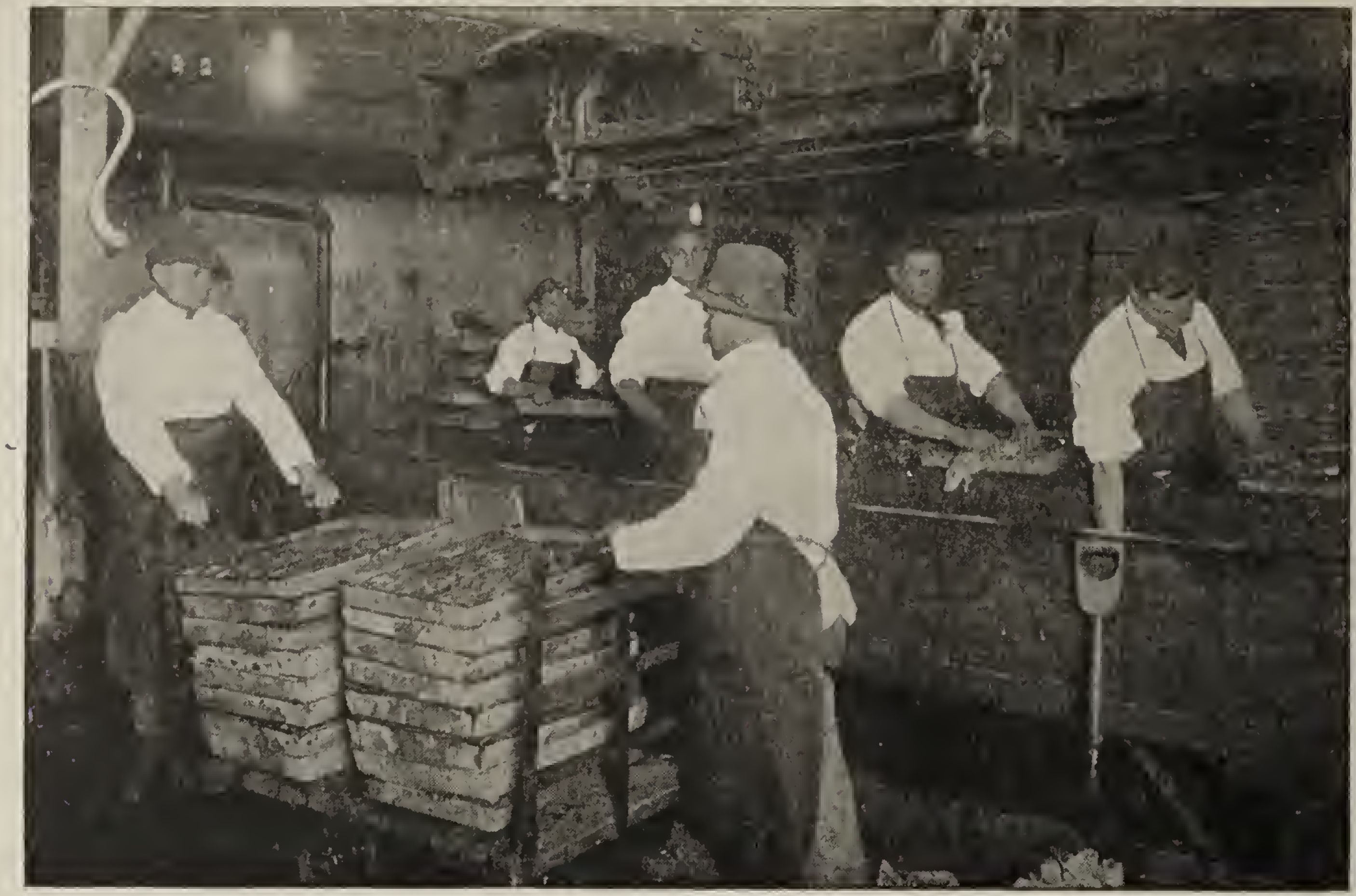
The Chinese have a custom of keeping eggs in covered pits for years, until they turn black, when they are considered a great delicacy. The state law, however, Jones finds, is very explicit on this point and forbids the holding of food or any article of food in cold storage for longer than a period of twelve months.

Jones is not a man who would stoop to tricking or evasion of the law, but he was interested in informing himself as to the powers conferred by law on state authorities. He finds that while the original law vested the State Commissioner of Health with the administration of cold storage regulations, a later act transferred that power to the Council of Farms and Markets, which has delegated actual supervision to Commissioner of Foods and Markets Eugene H. Porter.

It is, perhaps, unnecessary to state that where a business is conducted

Cleansing
Fresh
Fish
For
Storage

After being weighed the fish are thoroughly washed in the long trough. Employees handling the fish are immaculately uniformed, and every precaution is taken to insure a sanitary process from beginning to end.



Glazing and Panning of Fish in Sterile Galvanized Trays

As the fish are thoroughly cleansed, operators pack them in shallow trays in order that they may become thoroughly frozen through within as short a space of time as possible. This operation is known as panning. In the foreground is shown a load of trays about to be conveyed to the temporary freezing room. At the rear of the workers are piles of trays ready for future use.

under certain rules and regulations laid down by a governing body (the state in this case) such business is required to make frequent reports to the powers that be, and Jones must conform to these requirements; that is, he must submit monthly reports (page 15) to the State Commissioner of Foods and Markets, upon printed forms provided by the commissioner, setting forth in itemized particulars the quantity of each and every foodstuff in storage or in his control, and this report must be filed on or before the fifth day of each month, and the reports so rendered must show conditions existing upon the first day of the month in which the report is filed.

The state also prohibits the return of food to cold storage when once released for the purpose of placing the same on the market for sale. The reason for this is that it has been found that once an article of food has been taken from a low temperature to a higher one, deterioration sets in, which in a comparatively short time renders it unfit for human consumption. Now, if a side of beef, for example, were withdrawn from cold storage, and then returned, after exposure to the warm air, to a cold-storage room again, the process of deterioration would be at work, and while the cold air would retard it, yet it could not restore the meat to its former condition. So, to avoid all chances

Trays of Fish on Snow-Laden Shelves

So cold is the temporary storage room that no part of the fish can escape freezing. This photograph, though dim, is unusually good, since the warm air rushing in with the advent of the camera in the storage room, creates a film of moisture on the lens that is unavoidable.

This frosty scene is typical of any summer day in cold storage. In this room are stored salmon, halibut, skate and sea bass. In the foreground are piled pails of scollops.

A
Miscellaneous
Loose
Storage
Room

of danger, the state forbids the return of any food commodity.

Having read, marked, learned, and inwardly digested the rules and regulations under which he will do business, Jones may now go ahead with the comfortable assurance that the state is back of him and will see that he has a clear road and equal opportunity with other cold storage men to develop his business.

One more point arises, that is, the practical use of the blank forms which are adopted by the state in the enforcement of its rule governing cold-storage warehouses.

First, there is Form No. 1. This is a notification to John Jones that a license has been issued to him. The wording is simple and needs no explanation.

Form No. II is the blank on which Jones must make his monthly report and explains itself.

Form No. III is the form used by the inspector in his monthly visit, and it will be well for Jones to study the facsimile, that he may avoid any missteps.

Form No. IV: No inspector visiting Jones' plant should even have occasion to file this form against him or his customers in the commissioner's office. In the illustrated form shown, the man who violated the law *was not* Jones, but James Blank and Co., for he was aware when placing the packages in the warehouse that the law required him to remove them at the end of twelve months. Nevertheless, Jones should have insisted that his customer observe the law, knowing that a breach of it would reflect on him.

The four forms above-mentioned cover all the reports directly relating to Jones' warehouse. The three remaining forms, however, bear indirectly on the cold-storage business and Jones is, or should be, vitally interested in their observance.

Form No. V is a blank form used by inspectors who visit dealers handling cold-storage foods, and its purpose is the recording of any violations of the law governing the handling of such foods.

Form VI is a notification to a retailer that he is violating the rule requiring the display of a card stating that he is offering for sale articles of food that have been kept in cold storage. The inspector makes note of his inspection on the attached stub and informs the dealer he will return later to see that the card is properly displayed.

After Jones has embarked on his new business, should any question arise to puzzle him, he will find the State Division of Foods and Markets ready to assist him in any way in its power.

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One of the main causes of high prices, says the English food controller, is the low value of money. The cost of production has correspondingly increased. The public should produce more and consume less, but they are producing less and consuming more. He appeals to producers and traders to work at the smallest margin of profit.

## Bread Made With Sea Water

IT has long been a custom in certain parts of France to make up the dough for bread with sea-water instead of using, as is customary, fresh water, with the addition of salt required to make bread both healthful and appetizing, says the Literary Digest. Mr. Albert Saint Sernin, a French naval pharmacist of the first class, urges the wider adoption of the practice, which has, according to him, several advantages; the bread keeps moist longer, owing to the affinity for water possessed by the magnesium chloride sea-water contains; it is very wholesome, since it provides not only the chlorides of sodium and magnesium, but other mineral substances which the body can make use of.

The water must be collected at a suitable distance from land and should be taken from a depth of six or seven yards if possible. The yeast must be prepared with fresh water and the salt water used for mixing the dough. The French writer adds:

"Bread made with sea water, useful for everybody, is to be recommended specially for growing children, for convalescents, and for all those who need to repair the wastes due to fever or to hard labor."

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The most important discussions of the day revolve around "Food." Read THE AMERICAN FOOD JOURNAL regularly to keep informed.

# The Dietitian in the Small Hospital

By MADELINE FOSS MEHLIG, B. S.

(Director of the Bureau of Dietitians' Service, Central Division of the American Red Cross). Representing the Chicago Dietitians' Association of the Institution Section of the Home Economies Conference, held at the University of Wisconsin, Madison, Wis., June 9, 1919.

In order to advance the profession of the dietitian to that of the rank of a specialist, the organization of the Chicago Dietitians was established. It meets monthly in the Red Cross Chicago chapter rooms, and most interesting programs are given with the aid of the Chicago medical men who are interested in the study of dietetics. All Chicago dietitians desire to continue their education and compare their work to that being done in other hospitals as well as interest the general public in the importance of diet in the cure of disease. With such an organization the dietitian in the small hospital need no longer feel that she is alone in her profession.

### Without Dietitians

Chicago has about one hundred hospitals and there are about sixty dietitians present at most every meeting of the association, showing that about forty per cent of the Chicago hospitals do not have dietitians on their staff. About twenty per cent of the hospitals have a part time instructor, who teaches the nurses the theory of dietetics; the other twenty per cent have neither resident dietitian nor instructor. One hospital with about 250 beds has no supervision of its trays or its special diets. It is not uncommon to see gross errors in diet, such as diabetic patients being brought a tray containing cream of wheat, wheat bread, potatoes, macaroni (all these foods contain starch, which is forbidden to diabetics), nor is it uncommon to see the staff seated to a meal of cold roast beef, fried potatoes, cheese, fried eggs, bread, apple butter, coffee, cream and butter (this menu is too concentrated and lacks green vegetables). Such a meal may be served any night, whether in hot or cold weather. The hospital which lacks supervision of the menus, whether for patient or staff, is defeating its own aims. Dissatisfaction of the patient, poor patronage and unhappy nurses are the result of neglect of the important matter of feeding the hospital.

The dietitian in the hospital prevents waste, overfeeding, underfeeding, poor cooking and increases the profit and the health of the institution.

Some of the smaller hospitals are giving in their nurses' course in dietetics the minimum number of lecture hours, that is, the instructor teaches the nurses a short course of from 12 to 16 hours; the better and larger hospitals are giving their nurses 36 hours of lecture work plus their one month's practice work in the diet kitchen. No nurse is equipped to graduate until she has had a course in dietetics which will enable her to satisfactorily superintend and prepare the diet of all ages and classes of patients. So, too, she must be able to take correctly directions from the doctor, who orders special diets.

The small hospitals must have an unusually able dietitian, because she must not only supervise food preparation and dieting for patients and staff, but she must be an able manager of institutional affairs. She may have the buying of all supplies, including linen, utensils and food. She will be expected to employ all kitchen and dining-room employes and keep them sufficiently busy and happy. In one small Chicago hospital a dietitian was employed, but after three months' trial dispensed with because she did not satisfactorily fill the need. The fault was no more with the dietitian than with the hospital executive who hired her. She was not properly equipped for the position. As a special dietitian in a large, well organized hospital she would have been a success, but as a dietitian in a small hospital she was unprepared to qualify.

### Experience Valuable

Hospital executives are beginning to realize that there are great differences in the dietitians just out of a two-year school and dietitians who have the background given by a four-year college. Whatever institution is preparing the girl for this work, it must give sufficient amount of practical experience to enable the graduate to at least feel at home among institutional surroundings.

The Red Cross Central Division, Bureau of Dietitian Service, recently sent out a questionnaire asking the Chicago Dietitian:

"Did you feel prepared for your work when you first entered the hospital?"

Over sixty per cent answered that they felt unprepared. It was mostly the very recent graduates that felt most sure of themselves. However, all agreed that at least three months experience as student dietitian is necessary.

### In Every Hospital

This experience and more, too, is needed if the dietitian entering the hospital is to do all that is expected of her. There is a place for her on the staff of every progressive hospital. The nurses need her teachings, the patients her help, and the doctors her experience. But the dietitian who expects to be considered a trained specialist on the executive staff of the hospital must have a scientific training, institutional experience, mature judgment and a good measure of ability.

This might be called the age of Dietotherapy. Medical colleges are teaching future doctors dietetics, drugs are being superseded by proper foods; many diseases are cured thru diet; hospitals are teaching patients what to eat, and infant mortality is being lowered thru correction of malnutrition. Infant welfare associations, day nurseries and special clinics are demanding dietitians for their staffs. It must be the woman who will fulfill this need, as she only can combine knowledge of cookery and science in right proportions.

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## Changes in the Cost of Living

SINCE signing of the armistice, changes in the average cost of the different items entering into the budget were:

| | |
|---|---|
| *All items* | *2.8% decrease* |
| Food | 4.4% decrease |
| Shelter | 1.7% increase |
| Clothing | 6.2% decrease |
| Fuel, heat & light | 1.3% increase |
| Sundries | No change |

For the entire period July, 1914-March, 1919, the increases in the respective items were:

| | |
|---|---|
| *All items* | *61.3 per cent* |
| Food | 75 per cent |
| Shelter | 22 per cent |
| Clothing | 81 per cent |
| Fuel, heat and light | 57 per cent |
| Sundries | 55 per cent |

# Ham and Bacon in the Making

## The History of the Meat of the Hog Is Told In This Article as Well as Modern Methods of Preparing It for Our Tables

*By Eleanor Lee Wright*

THE advent of His Lordship, the porker, in the daily dietary of mankind, dates back to early ages. There is a wonderful old myth which tells of a day, a thousand years after the Flood, when the goddess, Ceres, had planted a field of wheat which, she discovered one day, was invaded by a pig. So enraged was the goddess that she had him punished and afterwards cooked, thus discovering his superior virtues as a most delicious food.

In later days this worthy factor in culinary art was most maliciously slandered, being held as impure by the Egyptians, while the religious Israelites honored him more by their ancient boycott than by prescribing him as an article suitable for their diet, though the Chinese have ever favored this savory meat. The favor which has been shown this delicious food has brought it to the present-day diet as an universal favorite.

Even in ancient Roman days the pig afforded a means for displaying the fine art of cookery. One of their favorite practices was to season this meat so that it would taste like any other meat. Their artistic sense, too, was most worthily displayed in the culinary achievement called the "Trojan pig." The animal was brought to the table whole, posed in lifelike attitude.

In the days of unruly luxury before foods were specified for the various "classes" the Roman household was never without the favored bacon.

Even in feudal fighting days, soldier's rations included "two hundred seventy score of bacon" for one thousand men for forty days.

The bounteous feasts of baronial mansions in "Merrie Old England" were copiously supplied by quantities of "flitches of bacon." Bards have often sung the praises of this delectable food as is evidenced by Pope's reference to "Darty's Ham Pie," Dartineuf's famous invention. Scott mentions Lady Margaret Belenden's marriage feast where viands solid and substantial were served, the "priestly ham" being included.

When there was much interchanging of names for foods during the Saxon Conquest period bacon retained its Saxon name.

The part played by food in history and on special gala events is all very interesting.

In England, on Carling Sunday, the week before Palm Sunday, a special soup was made of grey peas and bacon and given to customers of innkeepers. Christmas Day dinner was a lavish affair, having in the second course "a gammon of Westphalia bacon," while even the dinner of poor English farmers contained a scrap of bacon.

As one rhymester said,

> "The chiefest food they found most good in,
> Was rusty bacon and bag-puddin'."

Spanish "oglia" contained many kinds of meat and the recipe included "enterlarded bacon." In Russia many of the hotel keepers used to place "snacks" on the sideboard which consisted of many appetizing foods, among which was raw ham. Ham and bacon of olden times was doubtless an excellent, most edible food. But think of what those people missed in way of our present-day skillfully prepared products.

### Careful Selection

The selection of ham and pork begins outside of the plants—it begins with careful selection of the animal. After the sides of pork are ready for the pork house the skilled butcher grades every one of them, judging it by the texture of the skin and flesh, the proportion of fat and lean, the size of the bones and many other sure indications. When the sides of pork are brought from the cooling room to the cutting rooms the first selection of ham and bacon is made. A first quality ham must be one that will trim with the least possible waste, having a good shape with smooth skin with the correct proportion of fat.

The trained eye of the man who judges the quality of hams, as they slide before him on the cutting table, tells him which hams are suitable for a best quality product. And as he lifts the ham he can also judge — through much experience — whether the particular ham attains the weight standard.

After this thorough judging the hams are placed in great vats to be pickled. This special pickling process gives the ham its flavor, perfected by the smoking which follows. It also helps to make the ham firm, tender and sweet.

### Hams Inspected

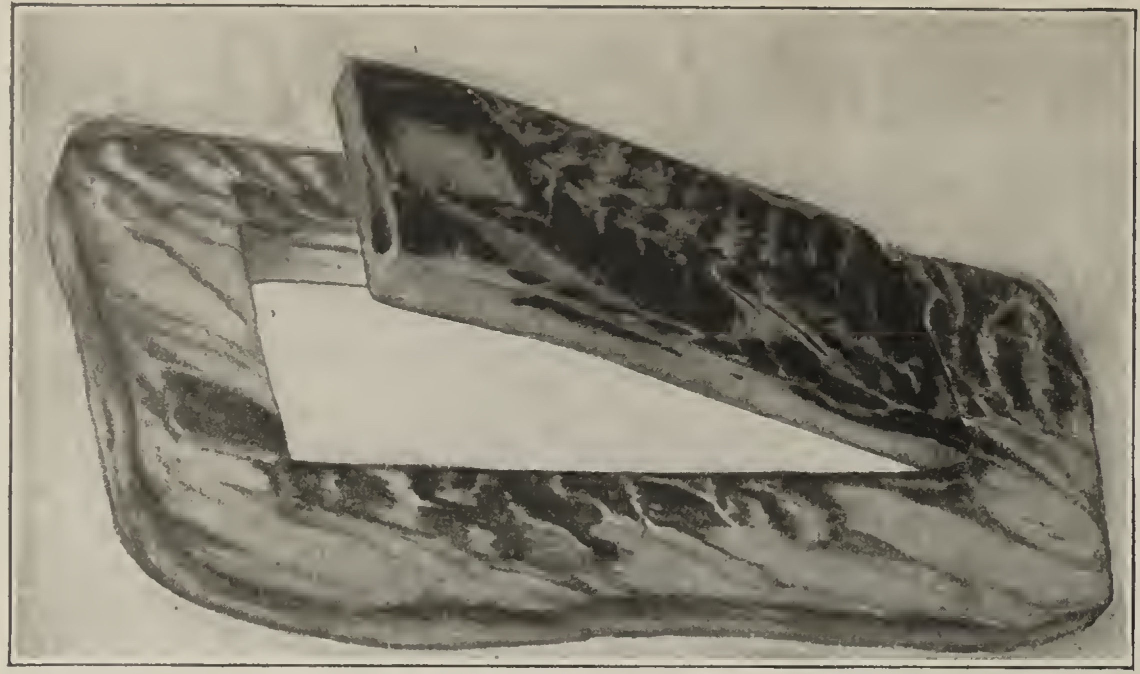
When the hams have stayed in the "pickle" for the given length of time they are removed and again inspected. If the "judge" decides that the ham has been perfectly pickled, it is carefully scrubbed and sent to the smoke house, where they are hung on racks arranged in long tiers. Hickory wood, or rather sawdust, is used for the smoke, depending on the kind deemed best by the individual producer. It gives the most luscious flavor to the ham. Then, too, smoking the ham helps it to retain its flavor as well as giving the skin the good color which a good ham must have. Besides, it makes the ham still more sanitary.

A final inspection takes place when removed from the smoke house, followed by careful wrapping, and it is ready for the market.

### Good Bacon

Like ham, bacon is carefully, skillfully selected, the smooth, clear skin, firmness, good color and proper proportion of fat and lean being considered. The very heart of the belly is used for a first quality product so that the final product slices evenly and with fat-and-lean all the way through.

These fresh sides of bacon are packed in air-tight boxes and given what is known as the dry salt and sugar cure. This requires days and days if a most excellent product is to be the result. Uniformity of cure and of flavor results when the temperature of the curing room has been



A Fine Side of Bacon Courtesy of Wilson & Co.)

accurately regulated, when the length of time is exactly determined and when the amount of "cure" is carefully estimated.

Could a domestic scientist work on any more sound scientific lines?

After the curing days are over the bacon is soaked, scrubbed and scraped so that there is no surplus salt on the surface and the skin is nice and smooth. Hung on special comb racks, so that the bacon does not stretch or sag, it is then slid into the great smoke houses where the fragrant hickory fumes convert the salt and sugar cure into rich, mellow goodness.

Then comes the final inspection and the wrapping in parchment paper, in the latter process, improving its general appearance, as well as to a certain degree, insuring its keeping qualities.

The dietetic value of ham and bacon is unquestioned even from early times and today plays an important part in the diet of those desiring energy-giving, healthful foods.

### Lesson on Ham and Bacon

I. When was the goodness of pork as a food said to be discovered?

II. How long ago is the use of bacon mentioned in history?

III. When did ham and bacon play an important part in the economic history of the world?

IV. How is bacon selected? Ham?

V. What are the processes used in curing bacon?

VI. What is the correct method for pan-frying bacon?

VII. How long should ham be broiled?

VIII. How should ham be broiled?

IX. Prepare menus for a week, using ham or bacon daily.

X. What is the food value of ham?

XI. In what class of foodstuffs should each be placed?

XII. What special diets emphasize the use of ham or bacon?

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## Some Cheese

If you don't believe it, here are the facts, for it is the largest cheese in the world, and it was made for Armour & Co.:

Weight—31,964 pounds.

Height—8 feet.

Diameter—10½ feet.

Circumference—33 feet.

Value—$16,000.00.

Weight of container—8,000 pounds.

Milk used—357,500 pounds.

Salt used—800 pounds.

Rennet used—1,251 ounces.

Three bandage cloths used, valued at $260, each measuring 33 feet long and 16 feet wide.

Factories furnishing the curds—fifty-nine.

Made by 73 cheese-makers and helpers.

Value of cheese factories—About $400.000.00.

Milk taken from 12,000 cows on 1,800 farms.

This cheese, larger than any ever attempted before, was made to be exhibited by Armour & Co. at the National Dairy Show, to be held at the International Amphitheatre, October 6 to 12, 1919.

So big and unique is this huge cheese that motion pictures have been taken by two large film companies, which will circulate the pictures of the world's largest cheese throughout the world, as well as the process of manufacture.

## Vegetable Medicines

Many foods are medicinal as well as nutritious. The people of a couple of generations ago gave onions for cold and rheumatism, cabbage for skin troubles, spinach as a laxative, tomatoes and carrots to stimulate the liver.

They were right. Onions are a valuable medicine. Their properties depend probably upon a powerful sulphur oil called allyl sulphide. They produce sleep, promote digestion, are a remedy for coughs and colds and are said to allay the pains of rheumatism.

Turnips and parsnips contain elements that account for their additional value as an aperient and dietetic, while their juices are an old remedy for coughs and hoarseness. Potatoes also contain a drug called solanin, which his diuretic properties.

Cabbages are rich in sulphur, therefore they are good for persons with scurvy and scrofula. The former is eaten as a laxative and blood medicine. The former quality is due to its indigestible fibers, the latter to the large amount of iron contained in its juice.

The tomato has been called vegetable mercury because of the presence in it of a principle which stimulates the liver and produces salivation when taken in concentrated form. Carrots have a similar action for a similar reason, due to a drug called carrotine, which they contain.

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American manufacturers of food who have been in the business a long time have seen many bitter fights between manufacturers of different varieties of foods which were designed to fill the same want. Many of those fights could not have gone on for years as they did if the people of the country had been better educated in food subjects. The day has come when education in dietetics is spreading rapidly and bitter fights between rival manufacturers or distributors are ceasing. Straightforward business competition with advertising and salesmanship are taking the place of political and semi-political activities. Those who still believe in the political method of advancing their interests must reckon with a public that has gained in knowledge in the last decade.

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Even the doctors are beginning to learn that many of the ills of humanity can be prevented by proper diet more effectually than they can be cured by medicine.

# State Laws on Margarine

SINCE starting our series of articles about Oleo-Margarine we have received so many inquiries regarding the laws on this class of products in the various states that we have decided to compile the principal features of these laws in condensed form and we give them herewith.

A careful reading of these laws will indicate very clearly to the unprejudiced reader that many of them are purely obstructionery in character and that the original intention of simply protecting the public from having butter substitutes fraudulently palmed off on the unsuspecting purchaser in place of butter, has been lost sight of. Many of the laws passed in a number of the states reflect the bitterness of the fight between the dairy and oleo-margarine interests and do not take the rights of the public into consideration—the right to choose between two wholesome products.

All through this series we have attempted to emphasize what we believe should be the basic principal on which all legislation effecting the manufacture and distribution of food products should be constructed. That is the principal that if products are not injurious, if they are made of clean and wholesome ingredients and marketed in a straightforward and proper manner they should have equal rights as far as the law is concerned. The law should not seek to favor any branch of the industry but should leave to the education forces of the country the duty of informing the public as to the greater merits for certain purposes of one product over the other.

### Alabama

1. Oleo must be free from coloration or ingredients that cause it to look like yellow butter.
2. Oleo or butterine should be marked plainly with word "Oleo" or "Butterine." No special size type required.
3. If in package form and contents are stated in terms of weight or measure, average net weight must be plainly and correctly stated on outside of package, reasonable variation allowed.
4. No license to sell required.

### Arkansas

1. Permits sale of oleo and butterine, colored or uncolored.
2. Top and sides of every tub, etc., shall be stamped or marked in printed letters of plain Roman type not less than 1 inch in length so as not to be easily defaced.
3. When dealer delivers package to customer the words "oleo" or "Butterine" must be printed on wrapper or these words may be printed on a label which is attached to the package. Print must be of plain Roman type not less than ½" in length.
4. Anybody defacing these stamps named in No. 2 shall be guilty of misdemeanor.
5. Restaurant and hotel keepers serving "oleo" or "Butterine" must have same marked on the place or dish holding same. Fine for violation not less than $5.00 or more than $100.00.
6. If in package form and contents are stated in terms of weight or measure, same must be plainly and correctly stated on the outside of the package.
7. No license law required.

### Arizona

No law.

### California

1. Prohibits sale of "oleo" colored in imitation of butter or made to resemble yellow butter in appearance.
2. Each tub, firkin, etc., of oleo to be marked upon top and sides with words "Substitute for butter" in printed letters, plain Roman type. Letters to be not less than 1½" in height by ½" in width. In addition a label upon which is printed not less than Pica type, its name, name and address of manufacturer, place of manufacturing and of the various ingredients should be attached to top and sides of each tub, etc.
3. Purchaser should be verbally notified on making sale that it is substitute for butter. The words "Butterine," "Creamery" or "Dairy" are prohibited from being used in sale of "oleo."
4. No proprietor of hotel shall furnish oleo to his guests unless accompanied by copy of the label or statement made in No. 2 above, and in addition verbally notifying him that the substance is a substitute for butter.
5. License fees required per year: Manufacturers, $100; Wholesalers, $50; Retailers, $5.00; Restaurant-keepers, $2.00. Wholesalers shall be construed to be those who sell in quantities of 10 lbs. or more.

### Colorado

1. Permits sale oleomargarine, any color.
2. Provides all oleomargarine must be put up in bricks, prints or rolls ½, 1, 2, 3 and 5 lbs. each and in no larger or small divisions.
3. Provides each roll, print and brick shall be wrapped and sealed and on each seal shall appear name and address of the manufacturer and the said package shall be plainly and conspicuously labeled with the word "Oleomargarine" in letters at least ⅜ inch high.
4. Seals shall be affixed so as to seal the wrappers so that such wrappers or covers may not be opened without destroying seal.
5. Retail dealer must stamp each package "Pounds" and "Oleomargarine" in letters not less than ¼ inch square and showing dealer's name and address.

### Connecticut

1. Prohibits sale of oleo, which shall be in imitation of yellow butter.
2. The word "Butter," "Dairy," or "Creamery" shall form neither the whole or part of name of any imitation butter, nor shall it be upon any box or tub.
3. Seller shall maintain over the main, outer entrance of its premises sign bearing in black Roman letters 2" wide and 4" long the words "Sold Here," preceded by name of the imitation article.
4. If selling is done from a vehicle, same must be marked on both sides with the words "Oleo Sold Here."
5. Seller shall inform buyer that article he purchases is not butter.
6. Every hotelkeeper furnishing Oleo or Butterine shall on May 1 or 15 register in a book kept for that purpose the name of town, street and No. of street of his place of business. He must also maintain in plain sight of his guest the sign "Oleo Used Here."
7. No baker or vendor of food shall sell any food containing Oleo, unless he maintains sign described in No. 3, except that the word "Used" shall be substituted for "sold."
8. All packages, tubs, etc., shall be marked conspicuously on outside thereof with the name of the imitation article in black Roman letters, not less than 1" wide and 2" long, on light colored background.
9. All packages must be marked 16 oz. or 1 lb. net weight—no size letters specified.
10. Effective August 1, 1917, a special tax if $5.00 levied on wholesale dealers and $2.00 on retail dealers.

### Delaware

1. Permits sale of Oleo., colored or uncolored.
2. Packages, tubs, etc., should be plainly marked with the word "oleo."
3. No license to sell is required.
4. If in package form and weight is given, it should be correct weight.
5. Contains no provisions relating to the serving of butterine in boarding houses, hotels, restaurants, institutions, etc.

### Florida

1. Permits sale of oleo and Butterine, colored or uncolored.
2. Packages should be marked with the words "oleo" and "Butterine."
3. If in package form, must be marked with net weight. A reasonable variation tolerated, this to be determined by inspector from changes in humidity of atmosphere.
4. Size of type not smaller than 8 point brevier capitals.
5. If size package should not permit use of 8 point type, same may be reduced proportionately.
6. No license to use is required.
7. New law, effective Oct. 1, requires wholesale dealers in Oleomargarine handling original packages only, to pay tax of $20.00. The county where the business is transacted also has the right under this law to add one-half this amount of the state licenses, or $10.00.

### Georgia

1. Permits sale of Oleo, colored or uncolored.

2. All tubs and packages, etc., should be plainly and conspicuously marked with the words "oleo" or "Butterine" so as to be easily observed by persons offering to purchase.
3. Dealers should also inform persons offering to purchase that the article is Oleo.
4. Hotel keepers should post in a conspicuous place in the dining room a placard with the words "This House Uses Oleo" and should also print the above words on a bill of fare, when a bill of fare is used.
5. If in package form and weight is given, it should be the correct weight.
6. No license to sell is required.

### Indiana

Whoever keeps on any table at any hotel or at any public or private boarding house any butter other than that made from pure milk without first labeling the same in large letters "Oleomargarine" shall be deemed guilty of a misdeameanor and fined $10 to $50.

1. Permits sale of Oleo., colored or uncolored.
2. Packages should be marked with word "oleo" in large letters—no special size required.
3. No license to sell required.
4. Weight, if given, should be correct weight.

### Iowa

1. Prohibits sale of Oleo. colored in imitation of yellow butter.
2. Each tub, etc., must be marked on side and top with words "Substitute for Butter," letters to be not less than 1" in length by ½" in width.
3. Hotelkeepers must display sign opposite each table with words "Substitute for Butter Used Here," type of letters to be same as described in No. 2 above. No other words except "Substitute for Butter used Here" to be printed thereon.
4. No license to sell is required.
5. If weight given, should be correct weight.
6. Enclose slip with each and every print or roll reading "Substitute for Butter" and showing manufacturer's name.

### Idaho

1. Permits sale of Oleo, colored or uncolored.
2. All tubs, etc., should be plainly marked with words "oleo" or "Butterine," size of type to be 8 point brevier capitals. If package will not allow for such size, the smaller type may be used proportionately to size of package.
3. Restaurants should post in conspicuous places signs with words "Oleo Used Here." Regulation of Board of Health that net weight must be given on package sold to retailer.
4. No license to sell is required.

### Illinois

1. Sale of Oleo colored to resemble yellow butter forbidden.
2. Top and side of each box, etc., must be marked clearly with words "Oleo" or "Butterine" or substitute for butter. Type to be plain Roman, each letter of which shall not be less than ¾" in length.
3. Purchasers must also be informed at time of sale that substance sold is imitation butter.
4. No common carrier shall ship Oleo unless marked as in No. 2 above.
5. No license to sell required.

### Kansas

1. Allows sale of Oleo, colored or uncolored.
2. Packages should be marked plainly with words "Oleo" or "Butterine."
3. If contents of package are stated in terms of weight or measure, net weight should be given.
4. No license to sell is required.
5. Regulation of Dept. of Health that when substitutes for butter are furnished by hotelkeepers, etc., that proper signs must be displayed and statement printed on bill of fare.

### Kentucky

1. Allows the sale of Oleo, colored or uncolored, provided the coloring is harmless, not poisonous and not deleterious ot health.
2. All tubs, etc., must be plainly marked with the word "oleo" or "Butterine." Retailers should inform purchasers that substance is Oleo, either verbally or by marking wrappers.
3. $5.00 State License required to sell.
4. If weight of package is given, it should be correct weight.

### Louisiana

1. Provides shall be marked "Oleomargarine," "Butterine," "Substitute for Butter," or "Imitation Butter" in plain Roman letters ¾" long. Every hotel, restaurant or boarding house must advise where they use oleomargarine that part on a line by itself in bold type in the English language.
2. Prohibits sale Oleo. colored to resemble butter.
3. Top of box or tub should be marked "Oleo" or "Butterine" or "Substitute" for Butter.
4. Purchasers should be informed at the time of sale article he is buying is imitation of butter.
5. Whoever defaces any mark with intent to violate the law is guilty of a misdemeanor.
6. Restaurants serving Oleo must place a placard in a conspicuous place.
7. If in package form and weight given, should be correct weight.
8. No license to sell is required.

### Minnesota

1. Manufacture and sale of oleomargarine manufactured intentionally in imitation or semblance of butter of any shade or yellow with intent to deceive or defraud prohibited. If ingredients are intentionally selected and used in such proportions as to cause oleomargarine to resemble butter of any shade of yellow such facts shall be prima facie evidence of intent to deceive.
2. Prohibits the manufacture of oleomargarine of which color is less than 55 per cent white.
3. To each receptacle, package in which offered for sale must be securely affixed upon the side a white or light colored label 3 line pica "oleomargarine" and immediately thereafter in 8 point bold faced, Gothic capitals the name of each ingredient and percentage, giving name of each animal or vegetable from which such fat or oil is derived.
4. Requires placard on outside of each package offered for sale reading "Oleomargarine" in plain uncondensed, Gothic letters 1" in height.
5. Retail dealer shall wrap his packages in wrappers stamped on outside "Oleomargarine" in letters ¼" square, said wrapper shall also contain name and address of seller, quantity sold and immediately following thereafter shall appear upon the wrapper the name and address of the manufacturer.
6. Prohibits use on package of words, "Dairy," "Rolls," "Country Rolls," "Jersey," etc.
7. Requires hotels, restaurants, etc., shall display signs on their bill of fare, if one is used, in 8 point bold faced, Gothic letters, "Oleomargarine Used in place of Butter." In case no bill of fare is used placard shall be displayed in dining room reading same words and letters large enough to be seen in any part of the room.

### Mississippi

1. There is an Oleomargarine license for State Revenue, amounting to $5.00, which reads as follows:

"On each dealer in oleomargarine or similarly manufactured butter, and this shall apply even though a party has paid a tax as other dealers."

If the State Licenses of any character are not paid during the month of May they are subject to double damages under the existing laws.

2. Allows sale of colored or uncolored oleo.
3. Tubs should be marked with words "Imitation Butter" 8 point brevier captials size of type required.
4. The several ingredients of imitation butter should be plainly marked on the main label in type as large as 8 point brevier captials or smaller, if size or package will not allow of 8 point brevier.
5. If weight is named on package, it should be correct weight.
6. No license to sell is required.

### Maine

1. Sale of Oleo. made in imitation of yellow butter is prohibited.
2. No hotelkeeper shall furnish Oleo. to guests without notifying them that the substance is not butter.
3. All packages should be marked conspicuously with the words "Oleo" or "Substitute" for Butter.
4. If in package form and contents stated in terms of weight or measure, correct weight should be stated.
5. No license to sell is required.

### Maryland

1. Prohibits sale of Oleo. made or colored to imitate natural butter.
2. Each tub, etc., should be marked with the words "Oleo" or "Butterine," size of type 36 point bold-faced Gothic capitals. Name of each ingredient entering into such substance should also be given. Dealer must also display placard with the words "Oleo Sold Here," size of type to be not smaller than 6" in height.
3. Hotelkeepers shall print on bill of fare in length not smaller than 8 point bold-faced Gothic capitals the words "Oleo Used Here in Place of Butter." If no bill of fare is used must post on each side of room placards with the words "Oleo used Here in place of Butter," the placard to be large enough to be distinctly seen and read from all parts of the room.
4. No license to sell is required.
5. If weight is given it should be correct weight

Section No. 136 of Maryland Statute. Renovated butter, process butter, oleomargarine, butterine or other butter substitutes may be sold if free from prohibited ingredients, and otherwise wholesome; provided, each vessel,

By-Products Reduce Food Prices

IF a thousand pound steer could be used for nothing but its food parts, its meat, sold at regular prices, would not bring what the steer cost. If its three hundred and fifty pounds of inedible parts were thrown away, **either producers would have to take lower prices for animals or consumers would have to pay more for food.**

Hence, Armour and Company must find a way to use and sell every ounce of all livestock.

Think of the problem of finding markets for glue, curled hair, hides and pelts, wool, lubricating oils, soaps, banjo strings, pharmaceutical preparations, sand-paper and many other by-products in almost unending quantities.

**To produce foods economically, we not only have to be in many lines of business but we must also be large factors in each of these many lines.** For, upon our ability to profitably market the by-products depends our ability to buy and sell foods at our present small margin of profit.

When you purchase Armour Products you are doing two important things:

You are helping assure producers of fair prices which encourage them to raise the food supply of the future.

And you are definitely securing for yourself utmost value in the food you eat.

ARMOUR AND COMPANY
CHICAGO

3010

package, roll or parcel of such substance be plainly and conspicuously branded by a stamp or label with the true name of each substance in letters not less than 36 point, bold-faced Gothic capitals, and also the name of each article or ingredient used or entering into the composition of such substance in letters of reasonable size, and provided, also, that the seller keep constantly and conspicuously posted on all sides of the room in which shall contain plainly printed in black ink thereon, in the English language, in type not smaller than six inches in height, the words "(True name of substances) sold here."

### Massachusetts

1. Permits sale Oleo. "free from any coloration or ingredient which causes it to look like butter."
2. Original package must be marked "Oleo" on top, sides, bottom, letters ½" long.
3. Retail dealers shall deliver to each purchaser of oleomargarine a label or wrapper marked "oleo" in plain uncondensed Gothic type ½" in length.
4. Cannot sell if any branded name of breed dairy cattle or name "Dairy" or "Creamery."
5. Storekeepers must register in books of Inspector of Milk.
6. Dealer must put placard on each package Oleo. exposed for sale, reading "Oleo" in letters 1" long.
7. Dealers must display sign "Oleo Sold Here" in letters 4" long.
8. Any vehicle delivering Oleomargarine must display sign "licensed to sell Oleo" in letters 3" long.
9. Hotels, restaurants, etc., must notify guests when serving Oleomargarine.

### Michigan

1. Each package, roll or print must have thereon "Oleomargarine" in bold-faced letters fine line pica size, also name and address of manufacturer in letters pica size.
2. Dealer must notify purchaser verbally when making sale product is oleomargarine and must deliver with purchase label reading "Oleomargarine" in five line pica size and name and address of manufacturer in pica size.
3. Dealers, Hotels, Restaurants, etc., must display signs in plain Roman letters 3" long and 2" wide "Oleomargarine Sold Here" or "Oleomargarine Used Here."
4. No one in selling or advertising can use words "butter," "Creamery," "Dairy," or name any breed of dairy cattle or other words implying product is butter.
5. Penal institutions of state are permitted to use oleomargarine.
6. New net weight law in Michigan requires that on all packages of food the true net weight or measure of contents shall be stated on the face of the principal label in plain English words and numerals that it may be plainly read.

### Missouri

1. Allows sale Oleo, colored or uncolored, except that harmful coloring is not allowed, or anatto or any of its compounds.
2. True name of substitute must be clearly and indelibly branded, marked or labeled on each firkin or package, with the words "Substitute for Butter," letters to be of plain Roman type one inch in length by ½" in width.
3. Hotelkeepers shall mark on dish in which they serve the substitute the name of the same.
4. No person shall offer for sale Oleo. under the pretext that it is butter.
5. No person shall mix Oleo. with butter without marking the package with the true name of the article and the percentages of each.
6. No license to sell is required.
7. If weight is given, it should be the true and correct weight.

### Montana

1. Provides no one shall manufacture, sell or expose for sale as butter any substance made out of vegetable or animal fats colored in imitation of butter of any shade of yellow.
2. Packages shall be plainly marked, stamped or labeled in plain black letters ½" vertical dimensions "Oleomargarine."
3. Hotels, Restaurants, etc., must display placards marked "Oleomargarine Used Here."
4. Prohibits use anatto or other coloring matter in any substance imparting thereto a shade of yellow butter.

### Nebraska

1. Prohibits the coating, coloring or powdering of Oleomargarine with anatto or any coloring matter whatever. Prohibits introduction of coloring matter or any substance or substances containing coloring matter

# The Question

*A possible jobbing connection for us, wrote one of our Jobbers as follows:*

* * * * * * * * * * * * *
* * * * * * * * * * * * *

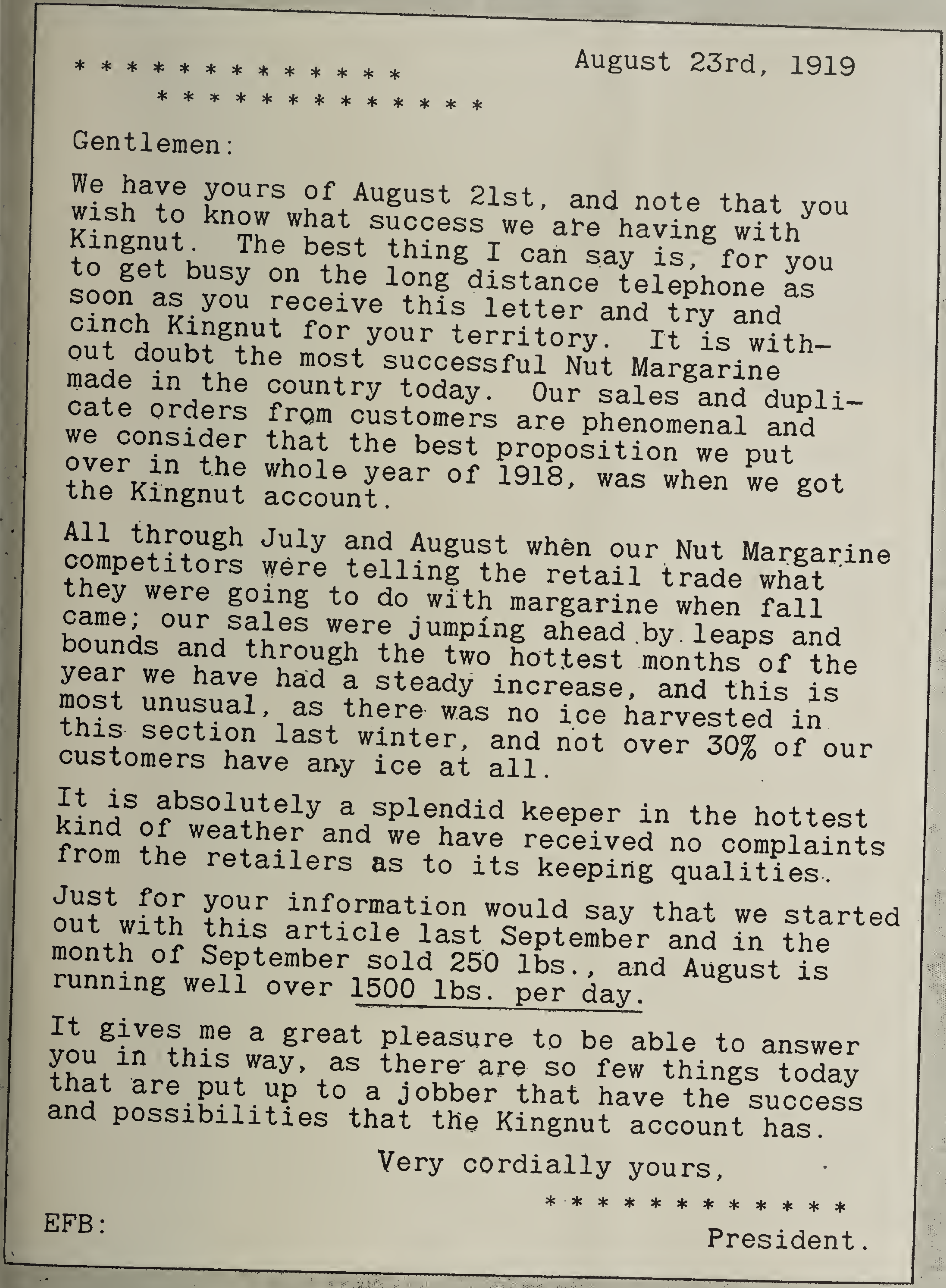
Dear Sirs;

We have been handling * * * * * * Margarine in this territory the past several years, and still expect to handle the same. But in the past six months, we have had several calls for a Nut Margarine, and since then we have been looking around for a good, live brand to sell in this territory, and knowing that you have been jobbing King Nut Margarine in your territory, we are writing you today asking you about the quality of this brand, and also how it sells in your territory in comparison to other good brands of Nut Margarines. We are enclosing you a stamped envelope for a reply, and any information that you can give us regarding King Nut Margarine, we would certainly appreciate.

Yours truly,
* * * * * * * * * * * *

**Kingnut is manufactured by**

# The Answer



* * * * * * * * * * * * * August 23rd, 1919

* * * * * * * * * * * * *

Gentlemen:

We have yours of August 21st, and note that you wish to know what success we are having with Kingnut. The best thing I can say is, for you to get busy on the long distance telephone as soon as you receive this letter and try and cinch Kingnut for your territory. It is without doubt the most successful Nut Margarine made in the country today. Our sales and duplicate orders from customers are phenomenal and we consider that the best proposition we put over in the whole year of 1918, was when we got the Kingnut account.

All through July and August when our Nut Margarine competitors were telling the retail trade what they were going to do with margarine when fall came; our sales were jumping ahead by leaps and bounds and through the two hottest months of the year we have had a steady increase, and this is most unusual, as there was no ice harvested in this section last winter, and not over 30% of our customers have any ice at all.

It is absolutely a splendid keeper in the hottest kind of weather and we have received no complaints from the retailers as to its keeping qualities.

Just for your information would say that we started out with this article last September and in the month of September sold 250 lbs., and August is running well over 1500 lbs. per day.

It gives me a great pleasure to be able to answer you in this way, as there are so few things today that are put up to a jobber that have the success and possibilities that the Kingnut account has.

Very cordially yours,

* * * * * * * * * * * *

EFB: President.

*Further information concerning this letter on request.*

**Kellogg Products, Inc., Buffalo, N. Y.**

into any one of the ingredients of which Oleo is composed.

2. Purchaser to be informed at time of sale that it is a substitute for Butter. Seller to deliver to buyer a statement clearly printed in plain Roman type, referring to the article as being a substitute for Butter.

3. Any keeper or proprietor of any bakery * * * dining cars * * * who serves or uses for cooking purposes an imitation of butter as defined in Section 3072, must display opposite each table in a conspicuous place where it may be easily seen and read, a white card not less than 10x14" upon which must be printed in plain black Roman letters not less than 1" in length and ½" in width the words "Imitation Butter Used Here." Penalty for violating any of the provisions of this section is a fine of $25.00 to $50.00 or thirty days in the county jail.

4. Packages shall be marked with net weight.

5. License fee per year: Manufacturer, $100; wholesale dealer, $25; retail dealer, $5; all licenses to expire on 30th June next succeeding date of issuance.

### Nevada

1. Permits sale of Oleo., colored or uncolored.

2. All packages, tubs, etc., should be distinctly marked with word "Oleo."

3. Retailers should mark packages with word "Oleo," same to be so printed that it may be distinctly seen.

4. Branding or marking, if on rolls or prints, shall be in letters not less than ¼" sq., and if on tubs or other packages shall not be less than ½" sq.

5. No license to sell required.

6. All packages should be marked with net weight.

### New Hampshire

1. Prohibits sale of Oleo. that is colored or made to look like yellow butter.

2. Tubs, packages, etc., should be marked with the words "Oleo" or "Adulterated Butter," type to be plain Roman letters, not less than ½" in length.

3. Unlawful to peddle Oleo. through the streets unless marked as in No. 2 above.

4. Hotelkeepers must notify guests that substance served is Oleo. or Butterine.

5. No license to sell is required.

6. If in package form and weight is given, it should be correct weight.

### New Jersey

1. Prohibits sale of Oleo, which shall be artificially colored in imitation or resemblance of yellow butter.

2. Each tub, firkin, etc., shall have painted on bottom a stripe or band at least 3" wide, extending completely round tub, stripe to be painted with black paint.

3. Each tub, package, etc., shall have a label printed and burned in by means of ordinary iron on outside of same in two places as nearly opposite as possible, the words "Oleo" or Butterine. Letters to be Roman, ½" high and ¼" broad, name to be at least 10" long, tub should also bear label with name and address of maker and location of manufacturer.

4. Retailers should inform purchaser that substance is imitation Butter. Must give purchaser a card on which is printed name of substance, name and address of seller and nothing else, unless it be weight of parcel. Notice shall be 6" in length and at least 4" in width and in letters and size known as 2 line English, notice to be printed in black on white paper and shall be either on outside of outer wrapper or on separate card attached thereto.

5. No person shall erase, cancel or remove either stripe of paint or band required in No. 2.

6. Ruling of Superintendent of Weights and Measures that all Oleo or Butterine must bear net weight on package in lbs. or oz. and that same shall be plainly marked.

7. No license required.

Laws contain no provision relating to the serving of Butterine in boarding houses, hotels, restaurants, institutions, etc.

### New Mexico

1. Have no information regarding law regulations sale at retail. Received a letter from the Secretary of State advising there is no law in New Mexico requiring hotels and restaurants to display signs when they serve Oleo.

### New York

1. Prohibits sale of Oleo in imitation or semblance of natural butter.

2. No person shall coat, powder or color with any coloring matter whatever Butterine or Oleo or any compound of the same.

3. Hotelkeeper may serve uncolored Oleo but must display sign "Oleo Used Here" in conspicuous place, letters to be 2" in length. Must also put words "Oleo Used Here" on bill of fare.

4. Dealer prohibited from using words indicative of a dairy in connection with word "Oleo."

5. Oleo must be sold only in packages not more than 5 lbs. in weight, same to be wrapped and sealed with the name and address of manufacturer printed thereon. Package to be plainly labeled with word "Oleo" in Gothic letters at least ⅜" high. Word "Oleo" must be stamped on each separate brick or substance itself before it is wrapped or sealed.

6. No license to sell required.

7. There is a New York state law prohibiting state or other institutions getting part of their support from the state using Oleomargarine.

8. Requires net weight marked on cartons.

### North Carolina

1. Permits sale of Oleo, colored or uncolored.

2. All tubs, etc., should be plainly and conspicuously marked with the words "Oleo" or "Butterine." No special size of type required.

3. Regulations of Dept. of Agriculture that hotelkeepers shall print on bill of fare words "We Serve Oleo Here." If no bill of fare is used, these words should be printed on a sign which is posted in a conspicuous place.

4. No license to sell is required.

5. If weight of package is given it should be correct weight.

### North Dakota

1. Allows sale of Oleo, colored and uncolored.

2. Packages must be marked distinctly with word "Oleo" or "Butterine"; letters not to be less than ¼" in width and ½" in length. Retailer may mark packages in lesser type if marked plainly.

3. Packages should be marked with net weight.

4. No license to sell is required.

### Ohio

1. Prohibits sale of artificially colored Oleo.

2. Dealers must keep a card 10x14" in conspicuous place where easily seen in store, room, wagon, etc., with word "Oleo Sold Here," the print to be on white ground in black Roman letters not less than 12 line pica; no other words to be used in connection with same.

3. Persons selling in less than original package must notify purchaser that article described is imitation Butter.

4. Hotelkeepers must place sign where easily seen with words "Oleo Used and Sold Here," the print to be same as described in No. 2 above.

5. No license to sell is required.

### Oklahoma

1. Permits sale of Oleo, colored or uncolored.

2. Tubs and packages, etc., should be marked plainly and conspicuously with the words "Oleo" or "Butterine."

3. Hotelkeepers shall notify their guests that the substance served is Oleomargarine; this may be done by printing the words "Oleomargarine Served Here" on the bill of fare or by placing same on placard which may be easily seen.

4. License to sell as follows: expires on 6/30 of each year. Manufacturer, $50; wholesale dealer, $25; retailer, $10 per year.

5. If in package form and weight is given it should be correct weight.

### Oregon

1. Prohibits sale of Oleo, colored to imitate yellow butter.

2. All tubs, etc., should be plainly marked with words "Oleo" or "Butterine."

3. Hotelkeepers must state on bill of fare that Oleo is used in place of butter. Type to be same as used in printing the body of said bill of fare. Shall also post a sign, type to be not less than 1 inch and known as full faced type.

4. No license to sell is required.

5. If weight is given, it should be correct weight.

### Pennsylvania

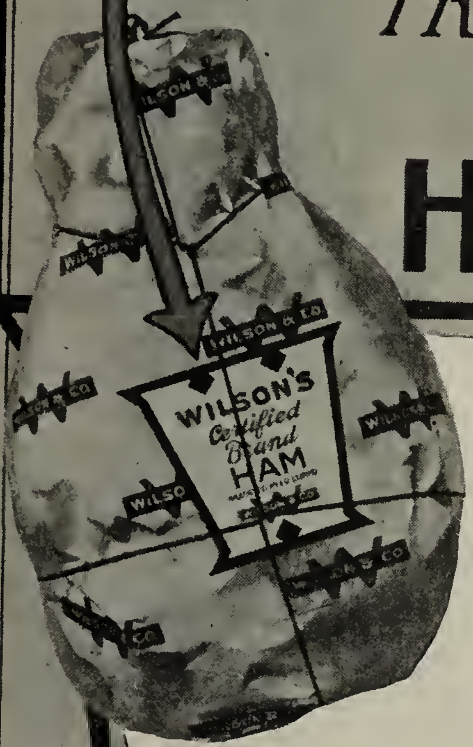
1. Prohibits manufacture and sale of oleomargarine in imitation of yellow butter. Will be deemed in imitation of yellow butter when it has a tint or shade containing more than 1.6° of yellow or of yellow and red collectively, but with an excess of yellow over red as measured in the terms of the Lovibond tintometer scale or its equivalent.

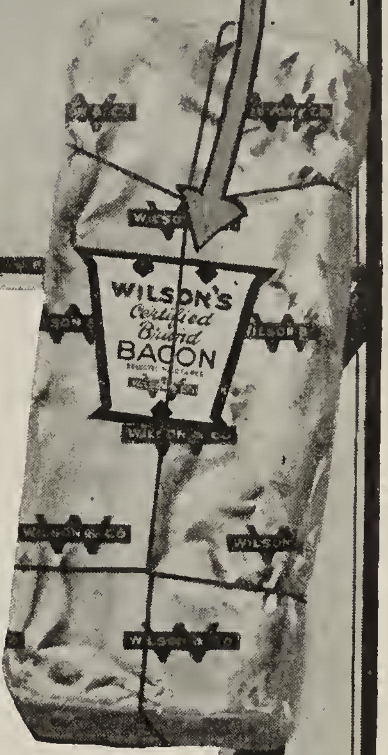
2. Application for license must be made to dairy commissioner, giving name of party, style of business to be carried on. Dairy commissioner authorized to license sale of uncolored oleomargarine on payment as follows: Manufacturer, $1,000; wholesaler, $500; retailer, $100; hotels and restaurants, $50; boarding houses, $10. Licenses expire December 31st each year. They may be transferred by Food Commissioner. Wholesalers de-

(Continued on page 36)

WILSON'S *Certified*

*The label which guarantees the finest quality in*
**Ham** *and* **Bacon**





WHEN you see the Wilson Certified label on hams or bacon you may know that the dealer is one who looks to the future. He appreciates the fact that increasing trade and lasting reputation rest on *known quality.* He knows what the Wilson label guarantees to his customers and himself.

* * *

PLUMP, well-fed porkers, approved by expert inspectors, are chosen for these superior products.

The ham is carefully trimmed so that it has just enough juicy fat to round out the quality of the choice, tender meat.

The bacon is selected from the most desirable section of the side, where the portion of lean and fat is such as to slice into the most satisfactory portions.

Your own mother could not show more *respect* than we do in the carefulness and thoughtfulness with which we give our Certified Ham and Bacon our patient, slow curing and hickory-smoking.

THE result is that Certified Ham and Bacon cook with a rich aroma, and have a toothsome flavor and a quality that makes you proud to serve them to your family and guests.

Ask your dealer for Wilson's Certified Ham and Bacon. If he can not supply you, kindly give us his name; we can stock him at once as our distribution is national.

*"Wilson's Meat Cookery" Free*—This valuable and instructive book, illustrated in colors, helps you to buy meats and plan meals economically and enjoyably.

Address Dept. 946, Chicago.

"This mark WILSON & CO. your guarantee"

*The Wilson label protects your table*

# European Hunger and Prejudice

DR. DAVID FAIRCHILD, of the United States Department of Agriculture, in an article in the Journal of the Franklin Institute (Philadelphia) on "The Palate of Civilized Man," thinks that the mental attitude enters strongly into the problem of feeding the world. The writer states that as a general thing people will starve rather than eat what they do not like, even when the food in question has been the staple of whole nations for centuries. The following extracts are taken from the article:

"Could a Southern planter or a Western farmer have imagined that the Belgians would have refused to eat his corn or that the British would even under the pressure of war prices buy cornmeal with great reluctance and the reason be that 'corn-meal is chicken food'? The soldiers' likes and dislikes in food have no doubt restricted and hampered the prosecution of the war. Blackberry jam formed an integral part of the ration of our miniature standing army, but it is hardly to be expected that it will be available to the millions of men soon to be in the field. Now while the facts and events are fresh in every one's mind it may be well to consider whether it may not be easier to change our minds than to change our agriculture.

"Consider the corn situation today and its bearing upon the gigantic problem before us of feeding starving Europe. When I first heard that the Belgians refused to eat corn, and that the Irish and English would eat anything else before they would touch it, my first impulse was to insist that they ought to be made to eat it. Edward Eyre Hunt, the author of 'War-Bread,' explained and made it entirely clear to me that a shocked and outraged people, wrought up and nervous to a high degree as a result of the treatment they have received is in no mental attitude to learn to like new food. The task of education would have been too long and more expensive than the shifting of our own menu at home, and in the meantime would have cost many thousands of lives. Resort was made to the use of different names for corn and concealment of it in war-bread with three parts of rye flour. * * *

"Not to like a food which has been the staples of peoples for thousands of years, and today is produced by the thousand million bushels and feeds hundreds of millions of people seems to us who like it a strange, incomprehensible spectacle. Yet it is no stranger than that of the American people and their indifference to that other great cereal, rice, which is produced in larger amounts than any other cereal in the world and forms the staff of life of hundreds of millions of civilized peoples.

"It is said the European is dependent upon the wheat loaf and the bakeries of that country are ill-suited to utilize corn. We are sometimes inclined to insist that they should break away from the exclusive use of the wheat loaf and learn to make corn bread—yet we have not learned to cook rice properly and complain of its insipid character, which must be an attitude hard for our oriental neighbors to understand. This indifference toward rice, of which staple we even now consume only the insignificant quantity of seven pounds per capita, has led to the abandonment of the fertile rice fields of the Carolinas, and today efforts are being made to find some paying crop to take its place there, because our meagre demands have been met until very recently by the California and Texas rice areas recently developed."

---

## Meats Shipped Abroad

From July 1 to August 9 last, 15,114,047 pounds of fresh and frozen beef, 6,794,538 pounds of canned and pickled beef, 15,297 pounds of lamb and mutton, 3,153,832 pounds of fresh and frozen pork, 50,367,813 pounds of hams, shoulders and bacon, 55,281,142 pounds of lard and lard compound, 1,304,472 pounds of sausage, 57,007,129 pounds of salted and pickled pork, and 253,966 lbs. of poultry and game were exported from New York to Belgium, Holland and Sweden. In this period also 420 horses were exported to France and 126 head of cattle were shipped to Belgium, according to records of the United States Department of Agriculture.

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## Food Control to Continue

Food control in England is to be continued during the winter, as it is stated that the situation of the world's markets today is too uncertain to admit of further decontrol of essential foodstuffs. Mr. Roberts, the English food controller, says that the question of international co-operation in matters affecting food control is under review by the cabinet and also by the Supreme Economic Council in Paris, while the cabinet have decided that the food ministry shall continue for the present with the necessary powers, and shall not come to an end, as was originally thought possible towards the close of the present year.

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## Continued Demand for Food Products Likely

CONTINUED strong demands for cereals and live-stock products are indicated by all the information in its hands, says the United States Department of Agriculture in reply to a telegraphic inquiry from G. I. Christie, Director of the Indiana State Food Committee.

"The State Food Committee has considered problems and feels that farmers should plan to sow a normal acreage of wheat and rye," said the Indiana inquiry. "Committee desires a statement from you on desirable plan of procedure and what lines farmers should follow."

The Department of Agriculture replied that while the exact world food conditions for 1920 can not be forecast with accuracy at this time it is considered sound policy to maintain normal acreages of fall wheat and rye on Middle West lands adapted to these crops, and that the need is for well balanced, sane, and efficient production of staples, the demand for which is reasonably certain, judging from existing domestic and foreign conditions.

"It is important," says the Department of Agriculture, "to restore meadows and pastures broken up during the war emergency, and to re-establish crop rotations to prevent depletion of soil fertility and afford sound basis for maintaing well-balanced live stock production. The department suggests to farmers the advisability of maintaining their production of cereals, forage crops and live stock on the basis of their accumulated experience with these, avoiding speculative plunging in unbalanced production, which involves undue climatic and price hazards."

Dehydrated
Vegetables

Parties interested in their
Distribution or Purchase
such as

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and other
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**DRYING SYSTEMS**
**INCORPORATED**
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
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# "Gospel of the Full Can" for Commercial Canners

THE "gospel of the full can" is being preached this year to commercial canners by the United States Department of Agriculture through its Bureau of Chemistry, which enforces the Federal food and drugs act, commonly called the "pure food law."

Inspectors of the Bureau of Chemistry will visit personally as many of the canneries this season as they can reach. They advise that all cans of food should be packed as full as practicable without injury to quality. They also advise housewives and other purchasers to note the relative amounts of solids and liquids in the cans they buy and to give preference to the products of firms that seem to want to give a square deal to the home larder. Examinations of a large number of cans put up by different firms reveal a wide divergence in this particular.

The Bureau of Chemistry specialists have made investigations to determine exactly how much solid food—food from which the liquid has been drained—may be put up in the cans of different sizes in common use without in any way injuring the quality of the product. A certain amount of liquid, which varies with the different products, is necessary. The addition of more liquid than is necessary results in less food in the can, makes an inferior product, wastes shipping and storing space, and is unfair to the consumer. An honest pack promotes fair dealing, conserves containers, food and shipping facilities, and aids the development of the canning industry.

The quantity of drained food which is the solid food exclusive of liquid, that can be put more efficiently and economically in each of the various sized cans in common use has been determined for peas, beans, cherries, pears, and peaches, and the canning industry has been advised of the results. The drained weights for other fruits and vegetables will be announced to the canning industry as they are determined.

In making a declaration of contents on cans of fruits and vegetables under the net weight requirement of the Federal food and drugs act, the total weight of the contents of the can, liquid included, should be declared.

Complete information regarding the application of the Federal food and drugs act to canned fruits and vegetables will be sent upon application to the United States Department of Agriculture, Washington, D. C.

# Important Food Bills Recently Introduced at Washington

We give below the gist of two important measures, relating to food products, recently introduced in Congress.

H. R. 8115, introduced by Mr. Huddleston, and referred to the House Judiciary Committee, provides in part as follows:

### "Necessaries" Defined

All articles and commodities manufactured, produced, or sold to be used as FOOD, clothing, feedstuffs, medicines, etc., and the materials used in producing such articles and commodities, are deemed necessaries.

### War Trade Commission

A War Trade Commission, to be composed of five members, is to be appointed by, and hold office during the will of, the President.

### Prices to Be Fixed—Licensing

The War Trade Commission is given authority (1) to fix the maximum sale prices for necessaries; (2) to adopt regulations for the distribution, transportation, sale, handling, and storage of same, and (3) to license dealers, agents and other handlers of necessaries.

### Unlawful to Sell Above Price Fixed

It is made unlawful to sell any necessary at a price greater than the maximum price fixed by the War Trade Commission, or if no price has been fixed, at a price greater than such necessary sold for on November 11, 1918.

It is also made unlawful to make any agreement, express or implied, with any dealer, producer, or handler, to fix or increase the price of a necessary, or to limit production of same; or, not being a producer thereof, to sell, deal in, handle or transport any necessary after fifteen days following the approval of the bill, without permission or license from the War Trade Commission.

### Commodities to Be Branded with Price

Persons other than producers shall not sell, exhibit for sale, or offer for sale, any necessaries unless same be legibly marked in plain figures with the original cost and the sale price thereof; where the commodity is not physically susceptible of being marked, it is unlawful to refuse to inform any prospective purchaser thereof of the cost and sale price.

### Penalties

Any wilful violation of the law is punishable by a fine of not more than $5,000 or by imprisonment for not more than five years, or both.

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H. R. 8120, introduced by Mr. James, and referred to the House Committee on Appropriations, provides as follows:

### Requisitioning Necessaries

The President is authorized to requisition FOOD, fuel and other necessaries needed to supply the public at reasonable prices, and to sell the same at such reasonable prices, distribution to be made through utilization of the parcels post service.

The President is required to ascertain and pay a just compensation for commodities requisitioned, and if the compensation determined be not satisfactory to the person entitled to receive same, such person shall be paid 75 per cent of the amount determined by the President, and shall be entitled to sue the Government to recover any further sum.

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# Why Is Food Allowed to Spoil?

Over 300,000 pounds of foodstuffs unfit for use were destroyed by the Louisiana State Board of Health in 1918. This is proof of the need for supervision of food for human consumption. The risk to the public is apparent. Incidentally it is a reflection on the system of shipment and purchase. Is the shipper, the transportation agency, the wholesale or the retail man at fault? It is an open secret that perishable foodstuffs instead of being placed on the market at a lower price than the market price, are left to spoil or are actually destroyed. At the present cost of food, this is nothing short of a crime. —*Louisiana State Board of Health Bulletin.*

**Bureau of Research**
**and**
**Foreign Market Analysis**

*Frank Howard Tate*
*Director*

Detailed accurate reports on all foreign markets for American food products—food production machinery—food containers.

This survey is authoritative and comprehensive and includes in addition to requirements of the markets:—import duties; standards of quality; specifications regarding packing necessitated by climatic and transportation conditions; marking and branding regulations; methods of distribution; also principal foreign competition.

The Bureau service is under the supervision of trained experts thoroughly conversant with world markets and is designed to meet the requirements of all American producers and exporters.

*Details on request*

**410 Cunard Bldg. Chicago**

# Develops Citrus By-Products From Waste

CULL oranges, lemons and grape fruit which were formerly wasted are now turned into many useful products developed by the Bureau of Chemistry, United States Department of Agriculture, which is conducting experimental work in the Citrus By-Products Laboratory, at Los Angeles, Cal.

The problem of how to utilize economically the cull and waste fruit became more acute each year with the development of the larger orange and lemon groves of California and Florida. Fruit which is too small or too large, unsightly or misshapen, can not be sold profitably for food. Some fruit is not fit for shipment because of minor defects such as small bruises or punctures from thorns or gravel or rough boxes, since such defects become points of infection for bacterial and fungus growths which cause decay. The amount of waste fruit averages from year to year about 3 per cent of the total crop.

The Citrus By-Products Laboratory was organized at Los Angeles, Cal., in 1914, to investigate the possibility of adapting to conditions in California, and improving existing methods for the utilization of waste lemons, to develop new methods and to make, if possible, new products from the waste lemons, oranges and grape fruit.

There were one or two small and struggling by-products companies in California when these investigations were begun. These concerns were making no appreciable inroad into the enormous supply of cull fruit available. Since the establishment of the experimental laboratory at Los Angeles the by-products industry has developed rapidly. Now there are four staple concerns manufacturing lemon by-products. The plants of these concerns have a capacity of over 50,000 pounds of lemon oil, 500,000 pounds of citrate of lime and over 1,500,000 pounds of citric acid. Twenty concerns are producing orange by-products to the extent of 6,000,000 pounds each year. These orange by-products include marmalade, marmalade stock, jellies, and candied peel.

Improved methods for the manufacture of orange vinegar have been developed by the experimental work. Methods for the production from cull grapefruit of candied peel and juices of excellent quality have been devised. The existing methods for the manufacture of citrate of lime and of citric acid have been improved and adapted to California conditions.

The benefits to the grower of fruit is shown by the increase in the price of cull fruits since the experimental work was begun. Less than five years ago cull lemons could be had in large quantities for $5 a ton, while today they bring $20 to $25 a ton, notwithstanding the fact that a larger quantity is now available. Sound cull oranges could be bought formerly in large quantities for $5 a ton. Now all cull oranges placed upon the market are snapped up quickly at from $20 to $30 a ton. Part of this increase in price is due no doubt to the general advance in the price of commodities of all kinds, but the general increase in prices will hardly account for advances of from 300 per cent to 500 per cent in cull fruit.

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## Cost of Living

WHILE the cost of living has been rising steadily in this country since the cessation of war, and only during the last few days that there has been any decrease in the cost of articles of food, and that largely because of the activities of the government in letting out surplus war supplies and otherwise forcing down prices, we learn from the Food and Cookery Magazine of England that there has been a steady decrease in the retail price of food in England since the day that the armistice was signed.

This magazine quotes G. H. Roberts, M. P., the Food Controller, who gave some interesting particulars concerning the cost of food at a conference of the English Labor Food Committees.

According to Labor Ministry statistics, he said, the cost of food at the time of the armistice was 133 per cent above pre-war level. Through the next month or two there was little change, and at the beginning of February prices stood at 130 per cent above pre-war level. In February they dropped ten points, in March seven points, in April five points, and in May four points. At the beginning of June prices were 104 per cent above the pre-war level as compared with 133 in November last. It was noticeable that these decreases continued right through May at the time there was so much talk of rising prices.

If, instead of the Labor Ministry figures, they took an estimate of the working man's expenditure on food made by Lord Sumner's Committee, they found that the expectation held out by the Prime Minister of a decrease of 4s. per week had been more than realized. The actual decrease on the basis of these budgets was 4s. 9d. Mr. Roberts quoted lard and margarine to show that the impression that decontrol had been regularly followed by increase in price was also contrary to fact. Even now margarine could be bought in some places at the old price of 1s. a pound. All the other articles that had been decontrolled showed at June 1 decreases below the last control prices. Tea was down from 2s. 8⅓d. to 2s. 6⅓d. Canned meat and lentils showed material increases.

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## Calls Tuberculosis Conference

THE first conference ever held in this country for the exclusive study of tuberculosis in animals has been called by Dr. Mohler, Chief of the Bureau of Animal Industry, United States Department of Agriculture, to be held in Chicago October 6 to 8, in connection with the National Dairy Show. The conference will be attended by Federal and State officials and veterinarians interested in the control of tuberculosis, and the purpose will be to discuss various phases of the tuberculosis-eradication campaign. Plans will be made to work out uniform methods of conducting the campaign in various states, a feature favored by practically every state sanitary official who is authorized by state law to control and eradicate livestock diseases. The program, which will include addresses by Federal and State officials, will be announced in the near future.

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If you can't go to the Twenty-Third Annual Convention of The American Dairy, Food and Drug Officials at New York, read the October number of THE AMERICAN FOOD JOURNAL and learn what was done and what was said at this important gathering.

## Proteins

Modern science has made the interesting discovery that proteins are not simple compounds, but are highly complex bodies. A starch molecule is made up of a large number of small units known as saccharids. Saccharids are all alike. A molecule of starch or sugar is simply an aggregation of these units each of which is like every other one.

The case is different with proteins. A protein molecule is made up of eighteen different bodies known as amino acids. No two are alike. All are necessary for the building of a complete cell or living tissue of the animal body.

Animal cells are pretty much all alike in chemical composition. The amino acids, the "building stones" of the body protein, may differ in proportion, but they do not change in kind.

Vegetable cells are different. They vary greatly in their composition. Some vegetable proteins contain in all the different kinds of building stones needed for the growth and repair of animal cells and tissues; others are almost wholly lacking in certain amino acids necessary for the building of animal protein. These are known as incomplete proteins.

Most seed proteins, such as are found in the cereals, are incomplete proteins, and must be supplemented by other proteins which will supply the lacking amino acids.

The experiments of McCollum show that of all available proteins, the casein of milk is one of the very best. It is especially adapted to supply the deficiencies of cereals. Hence the common practice of eating milk with bread and breakfast cereals is in exact accord with scientific principles.

McCollum has undertaken to grade the several commonly used proteins by comparison with milk protein. Taking milk as 100, he finds the value of oat and millet seed proteins to be 75, wheat maize and rice proteins, 50; flaxseed proteins, 40, and the proteins of peas and navy beans, 25.

With the addition of a liberal supply of milk, however, all these proteins become worth nearly their face value.

It is thus very evident that milk and other dairy products fill a most important place in the economy of nutrition. According to McCollum, the importance of milk as a supplement to a diet of cereals or other vegetable foods is much greater than that of meat.

It is also of interest in this connection that the proteins of the soy bean, of the peanut, the almond and probably other nuts, are complete proteins, closely resembling the proteins of milk. In Japan and China cheese and a very palatable milk are made from the soy bean. The soy bean also contains the precious fat-soluble vitamin, although the peanut does not.

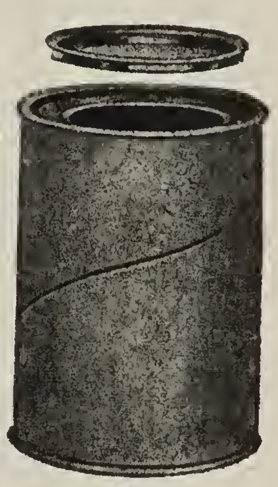
## Convention Change

The American Specialty Manufacturers Association Convention meeting place has been changed from Boston to Hotel Traymore, Atlantic City, N. J.

The dates on which the Convention is to be held are November 20th and 21st.

When the shrimp are first caught they are grayish-white and not until they have been peeled, washed and boiled do they become the beautiful red or pinkish color which is so greatly admired.

The delicate flavor and pleasing taste as well as food value of this estimable product places them among foods valuable for dietetic and economic reasons.



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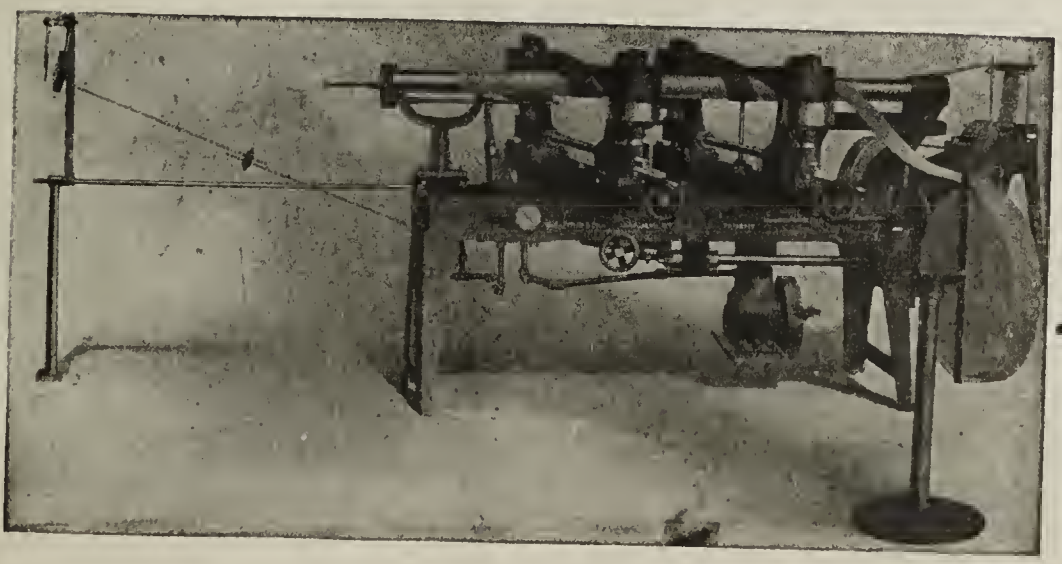

## WOODEN DISHES

(Continued from Page 12)

tual condition of the dish when received carrying the food product.

The dishes carrying the food products were then turned over to a graduate of Domestic Science in our Laboratories for the removal of food.

The containers were then arranged in a series of eight and photographed to show the condition of the dish after the removal of the food. Each dish was then weighed to obtain the amount absorbed by each.

The results of this experiment are shown in Table 2.

In removing the food from the different dishes, extreme care was exercised to prevent the scraping off of the dish itself. This was very difficult to do in the cases of A, B and C. Dish C presented the most trouble in this respect, as the soft material after becoming moist was very easily scrapped up.

### CONCLUSION

This investigation shows that in some containers a large percentage of valuable food constituents are absorbed and lost to the consumers. A simple mathematical calculation will show the net loss in dollars and cents to the consumer of food dispensed in these containers.

The durability of the food container is an important factor in preventing loss to the consumer, and in the service which the dish generally renders to the consumer.

In the case of dishes A and B, durability was only fair. In the case of dish C it was very slight. Dish D, or the maple wooden dish, presents all that could be expected in this respect.

It is not intended to be shown that food can be dispensed in any other way under modern systems of delivering retail goods. The dish as a container of food finds general use, and seems to be thoroughly and properly established in the retail trade. However, the choice of containers remains with the consumer, inasmuch as there are several on the market for the use of dispensers of food stuffs.

TABLE 1

Water Absorption by Dishes

| Dish 1 lb. Size | Weight Dry Grams | Weight Wet Grams | Water absorbed and held Grams |
|---|---|---|---|
| A-1 | 14.622 | 28.550 | 13.928 |
| A-2 | 14.302 | 28.907 | 14.605 |
| A-3 | 14.460 | 28.057 | 13.597 |
| A-4 | 14.299 | 27.950 | 13.651 |
| A-5 | 14.349 | 27.425 | 13.076 |
| A-6 | 14.429 | 27.620 | 13.191 |
| B-1 | 15.089 | 32.220 | 17.131 |
| B-2 | 15.190 | 32.070 | 16.880 |
| B-3 | 15.110 | 32.330 | 17.220 |
| B-4 | 15.205 | 32.780 | 17.575 |
| B-5 | 15.075 | 32.280 | 17.205 |
| B-6 | 14.952 | 31.970 | 17.018 |
| C-1 | 8.323 | 38.215 | 29.892 |
| C-2 | 8.723 | 40.805 | 32.082 |
| C-3 | 8.583 | 38.360 | 29.777 |
| C-4 | 8.606 | 39.150 | 30.544 |
| C-5 | 8.666 | 38.280 | 29.614 |
| C-6 | 8.636 | 40.300 | 31.664 |
| D-1 | 17.465 | 25.030 | 7.565 |
| D-2 | 18.570 | 26.755 | 8.185 |
| D-3 | 17.760 | 26.425 | 8.665 |
| D-4 | 18.405 | 25.782 | 7.377 |
| D-5 | 18.685 | 25.730 | 7.045 |
| D-6 | 17.760 | 25.470 | 7.710 |

TABLE 2

Food Absorption by Dishes

| Dish | Food Product and weight | Weight Dish Empty Grams | Weight of Dish After Removal of Food Grams | Weight of of Food Product Absorbed by Dish Grams |
|---|---|---|---|---|
| A-1 | Butter, 1 lb. | 14.352 | 28.758 | 14.406 |
| B-2 | Butter, 1 lb. | 15.122 | 35.816 | 20.694 |
| C-3 | Butter, 1 lb. | 8.542 | 37.551 | 29.009 |
| D-4 | Butter, 1 lb. | 16.422 | 22.655 | 6,233 |
| A-1 | Potato Salad, 1 lb. | 14.724 | 26.765 | 12.041 |
| B-2 | Salad, 1 lb. | 15.185 | 26.679 | 11.494 |
| C-3 | Salad, 1 lb. | 8.587 | 24.381 | 15.794 |
| D-4 | Salad, 1 lb. | 19.300 | 25.790 | 6.490 |
| A-1 | Lard, 1 lb. | 14.382 | 26.105 | 11.723 |
| B-2 | Lard, 1 lb. | 15.050 | 28.041 | 12.991 |
| C-3 | Lard, 1 lb. | 8.590 | 38.684 | 30.094 |
| D-4 | Lard, 1 lb. | 17.477 | 23.865 | 6.418 |
| A-1 | Peanut Butter, 1 lb. | 14.800 | 23.326 | 8.526 |
| B-2 | Butter, 1 lb. | 15.155 | 26.810 | 11.655 |
| C-3 | Butter, 1 lb. | 8.450 | 24.725 | 16.275 |
| D-4 | Butter, 1 lb. | 18.342 | 22.090 | 3.748 |
| A-1 | Relish, 1 lb. | 15.040 | 29.745 | 14.705 |
| B-2 | Relish, 1 lb. | 15.114 | 34.720 | 19.606 |
| C-3 | Relish, 1 lb. | 8.657 | 49.645 | 40.988 |
| D-4 | Relish, 1 lb. | 19.645 | 27.685 | 8.040 |
| A-1 | Baked Beans, 1 lb. | 14.835 | 26.655 | 11.820 |
| B-2 | Beans, 1 lb. | 15.020 | 29.662 | 14.642 |
| C-3 | Beans, 1 lb. | 8.465 | 38.536 | 30.071 |
| D-4 | Beans, 1 lb. | 19.978 | 26.580 | 6.602 |
| A-1 | Apple Butter, 1 lb. | 14.832 | 27.555 | 12.723 |
| B-2 | Butter, 1 lb. | 15.127 | 31.310 | 16.183 |
| C-3 | Butter, 1 lb. | 8.554 | 60.605 | 52.051 |
| D-4 | Butter, 1 lb. | 19.785 | 27.470 | 7.685 |
| A-1 | Hamburg Steak, 1 lb. | 14.427 | 25.418 | 10.991 |
| B-2 | Steak, 1 lb. | 14.932 | 25,595 | 10.663 |
| C-3 | Steak, 1 lb. | 8.765 | 23.311 | 14.546 |
| D-4 | Steak, 1 lb. | 18.572 | 24.055 | 5.483 |

A—Paper Dish.
B—Paper Dish.
C—Wood Pulp Dish.
D—Maple Wood Dish.

"So you've decided to have a garden this year instead of raising chickens?"

"Yes; we used to get so attached to our fowls we couldn't eat them. One doesn't feel that way about potatoes and onions."

—*Boston Transcript.*

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Mapleine is a pure vegetable flavor giving delightful flavor and rich golden brown color to syrup, also frostings, fillings, ice cream, desserts.

Contains no maple sugar, syrup nor sap, but produces a taste similar to maple.

*Grocers sell Mapleine.*

4c stamps and carton trade mark bring 250 recipes.

Crescent Manufacturing Co.
Seattle, Washington

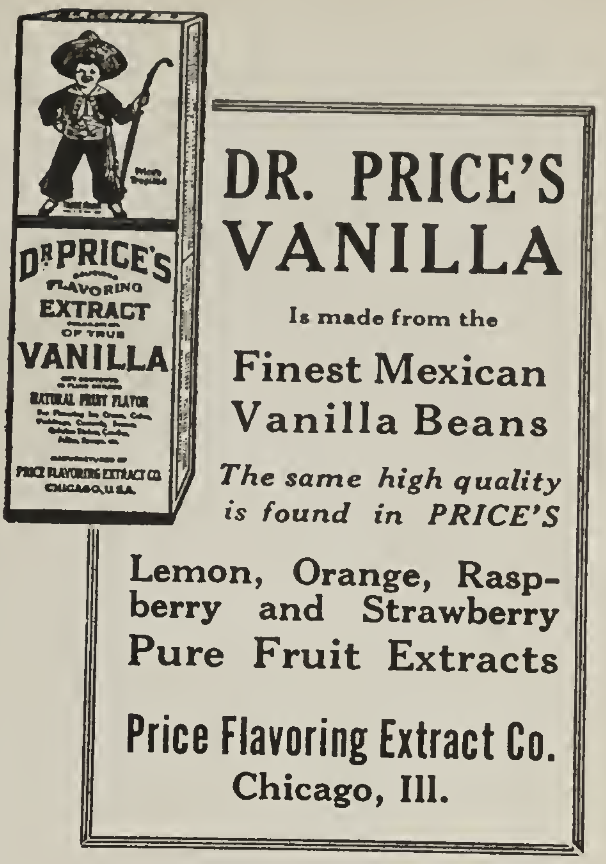
### Tomato Paste

(Continued from page 14.)

enables one to operate a large or small batch perfectly controlled.

Tomato juice can be concentrated in open kettles at atmospheric pressure, but the paste so made is liable to be off in color and have a scorched taste. Kettles designed to boil the mass rapidly, stirring all the while and provided with good ventilators for quickly and effectively removing the steam, will give a good product. But the average kettle as operated will not be satisfactory for turning out a first-class product. Using a so-called chilisauce kettle which is a flattened jacketed kettle with greatly increased evaporating surface would probably greatly experdiate the rate of evaporating and serve to minimize the duration of exposure to heat and air. An auxiliary system of a preliminary concentration in a tank with steam coils, leaving the subsequent reduction to paste to take place in a kettle is now largely practiced. Some firms are developing a method whereby they separate the red fibrous material from the colorless liquor, concentrate the latter which is not so deleteriously affected by heat and air, and then add the uncooked meaty portions to this concentrated liquor, stir well and heat just enough to sterilize. They claim that a good product results. However, this involves mechanical problems difficult to apply under the working conditions of most tomato concentrating plants.

The advantages of such manufacture to furnish goods to replace ordinary canned tomatoes are obvious. In ordinary canning operations each tomato has to be separately peeled, thus limiting the output of a factory by its number of peelers, whereas in paste manufacture the manufacturer is freed from his bondage to this touchy and uncertain class of labor. It follows that he can observe with more equanimity the depletion of the ranks of this labor, and places his operations on more of a mechanical and technical plane, free from the petty annoyances of the human labor factor and at the same time cheapens his operating cost and yields a cleaner product. Since no hands touch the product and absolutely mechanical cleanliness must be observed it follows that such a product is of the highest order of cleanliness. To handle an equal tonnage of tomatoes for paste manufacture, his labor is only 25 per cent of his former force, his consumption of tin is reduced to 33 per cent, his freight saving is reflected in the fact that a 6-oz. paste can contains practically the equivalent of a 32-oz. ordinary tomato can, while his former cannery waste amounting to 50 per cent of the tomatoes which he has paid for and hauled to his plant, is not carted away at a dead expense, but ceases to exist, due to the fact that practically none occurs.



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Is made from the
Finest Mexican Vanilla Beans
*The same high quality is found in PRICE'S*
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Price Flavoring Extract Co.
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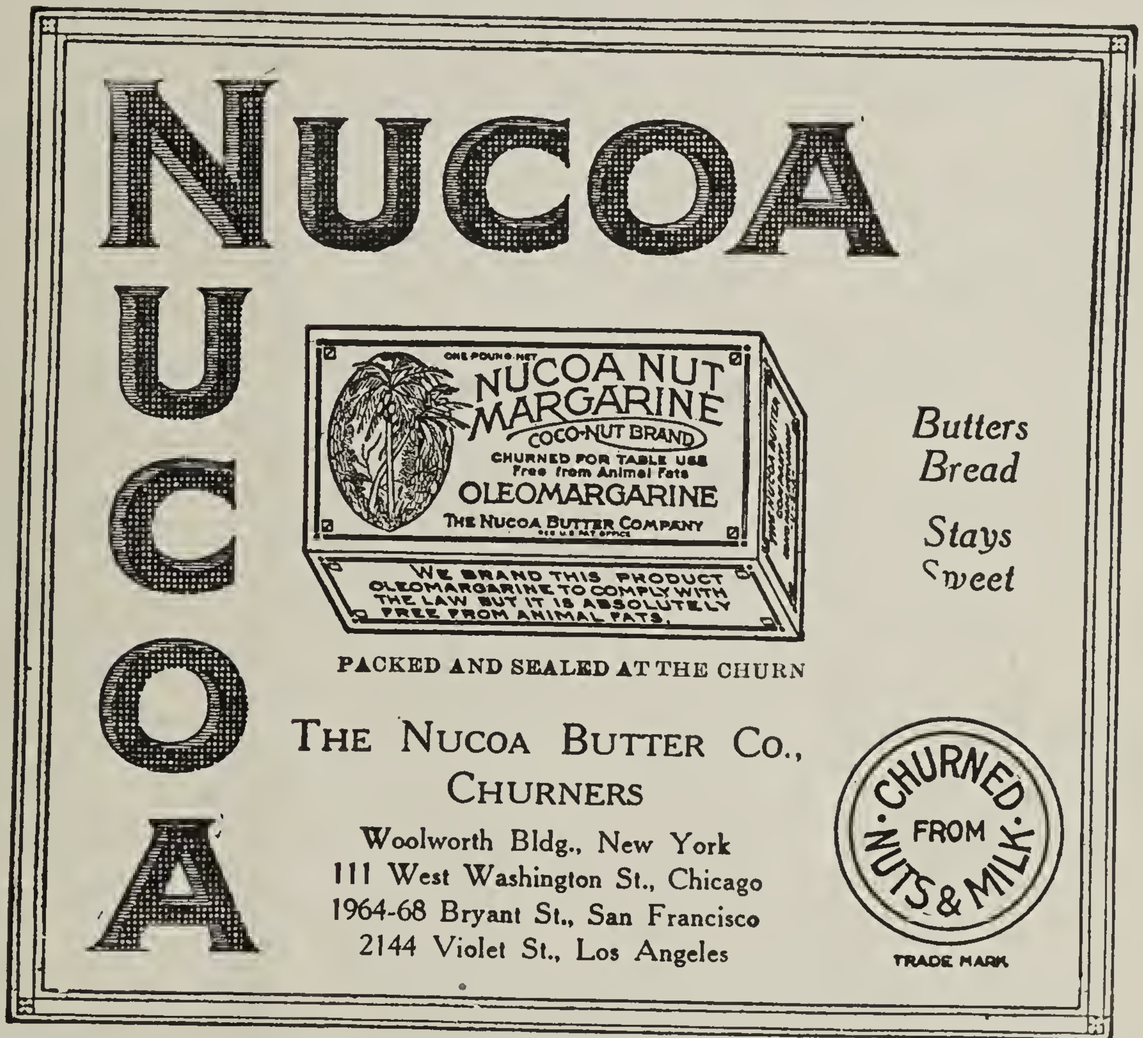
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*Butters Bread Stays Sweet*
PACKED AND SEALED AT THE CHURN
THE NUCOA BUTTER CO.,
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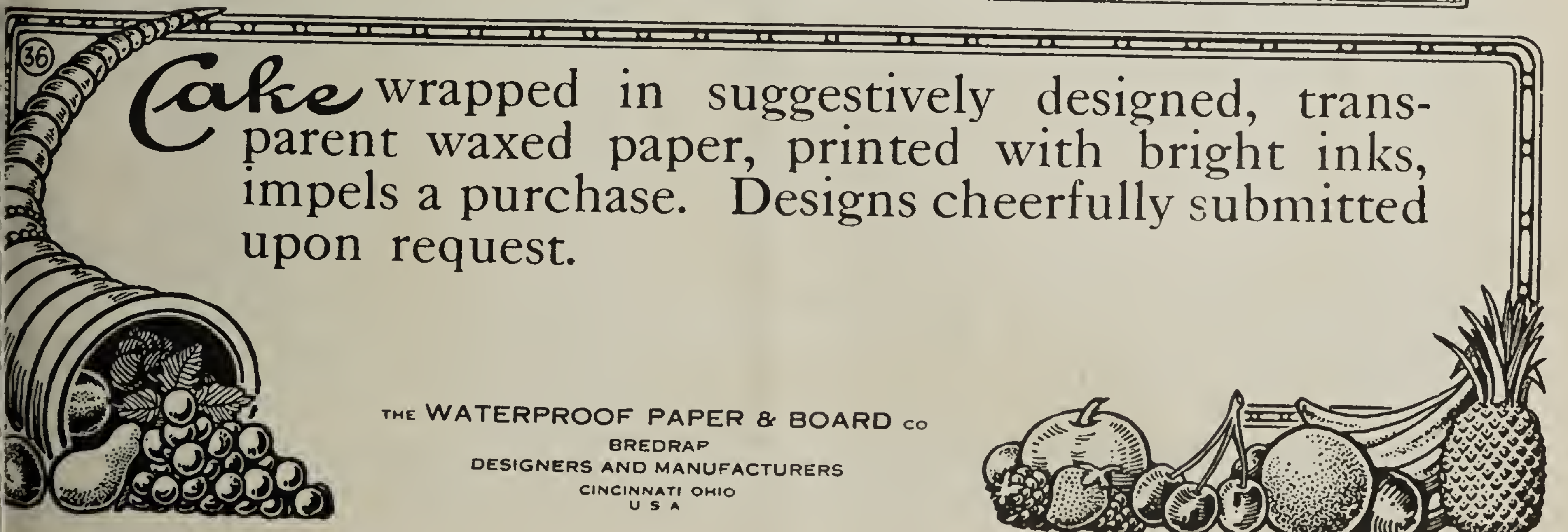

Cake wrapped in suggestively designed, transparent waxed paper, printed with bright inks, impels a purchase. Designs cheerfully submitted upon request.
THE WATERPROOF PAPER & BOARD CO
BREDRAP
DESIGNERS AND MANUFACTURERS
CINCINNATI OHIO
U S A

## MARGARINE LAWS

(Continued from page 26.)

fined as those who sell quantities of 10 lbs. or over.

3. Licenses issued by commissioner must be displayed on walls in conspicuous places. Hotel keeper must have placard plainly printed on each table with words "Oleomargarine Used Here."

4. Attached to tub must be placard with word "Oleomargarine" printed thereon in plain uncondensed Gothic letters not less than 1" in length. Similar card must be displayed on every open tub, case, etc. Before delivering to purchaser wrapper must be stamped with word "Oleomargarine" in letters ¼" square. Wrapper must also contain name and address of seller and quantity sold.

5. Manufacturer and wholesaler must keep book and record therein every sale and shipment, quantity, person to whom sold and shipped and place and name of common carrier by which shipped. Retailer must also keep book in which he shall enter all receipts of oleo.

### Rhode Island

1. Permits the sale of Oleo, colored or uncolored.

2. Top and side of each firkin, etc., must be marked with the word "Oleo," size of type to be not less than ½" in length.

3. Retailer must give to purchaser a label with the word "Oleo" plainly written thereon.

4. If weight is given, it should be corretc weight.

5. No license to sell is required.

### South Carolina

1. Permits sale of Oleo, colored or uncolored.

2. Packages, tubs, etc., should be plainly marked with the word "Oleo."

3. No license to sell is required.

4. If in package form and weight is given, it should be correct weight.

### South Dakota

1. Prohibits sale of substitute for butter having yellow color.

2. Tubs, etc., should be marked on top and side, with words "Substitute for Butter," type to be not less than ½" in width.

3. Hotelkeepers shall keep posted opposite each table a placard with the words thereon "Substitute for Butter Used Here," the size of type to be plain Roman letters, not less than 1" in length by ½" in width.

4. Purchaser should be informed at time of sale that article is substitute for butter. Printed statement must also be given purchaser with the name and place of business of the maker, and the information that substance sold is substitute for butter.

5. No license to sell is required.

### Tennessee

1. Prohibits sale of Oleo in imitation yellow butter.

2. Tubs, etc., should be marked on top, side and bottom with word "Oleo" or "Butterine," letters to be not less than ½" in length and ¼" in width.

3. When not sold in original package, placard must be attached to the mass, similar to placard name in No. 2 above.

4. Retailer shall deliver to purchaser label or wrapper bearing in conspicuous place on outside the word "Oleo" or "Butterine," type to be same as named in No. 2 above.

5. No license to sell required.

### Texas

1. There are no special laws on this subject in this state. Therefore, the sale of Oleo, colored or uncolored, would be proper, provided the coloring is harmless.

2. Believe it also would be proper that all tubs, etc., be plainly marked with the word "Oleo" and if in package form and sold to consumer and weight is given, it should be true weight. No licenses are of course required.

### Utah

1. Prohibits sale of Oleo, colored or made of ingredients to look like butter.

2. Placard with word "Oleo" or "Butterine" must be attached to the tubs, etc. Every open tub, etc., must also have conspicuous placard with word "Oleo." Letters in above placard to be uncondensed Gothic style not less than 1" in length.

3. Every retailer or owner of public market selling same must post in conspicuous place placard or sign with the words "Oleo" or "Butterine Sold Here." This sign to be approved by Food Commissioner.

4. Hotelkeeper must notify guests that substance furnished is not butter.

6. No license to sell is required.

The Utah law was amended this year and the old law repealed, leaving out that section regarding the use of oleomargarine by state charitable and penal institutions.

### Vermont

1. Permits sale of Oleo, colored or uncolored.

2. Words "Oleo" or "Butterine" should be marked on top, side and bottom of each tub, firkin, etc. If Oleo is not in original package, then must be upon a label attached to such articles. In case of retail, sales words "Oleo" or "Butterine" must be stamped on wrapper, type to be plain uncondensed Gothic letters, not less than ½" in length. No other words to appear in connection therewith.

3. If weight of package is given it should be correct weight.

4. Words "Creamery," "Dairy," or name of breed of cattle shall not appear on the tub, firkin, etc.

5. $25 license to sell is required.

6. Hotelkeeper should display sign with words "Oleo Used Here."

### Virginia

1. Prohibits sale of Oleo which shall be in imitation of yellow butter.

2. Bakeries, hotels, etc., must post in conspicuous place signs bearing words "Imitation Butter Used Here," letters to be large Roman type not less than 1" square.

3. No license to sell is required.

4. All tubs, etc., shall be plainly marked with word "Oleomargarine" or "Butterine."

5. Dealers must display sign reading "We Sell Oleomargarine Here" in black letters 1" square on a white background.

### Washington

1. Prohibits sale of Oleo which is colored in imitation of yellow butter.

2. Uncolored Oleo may be sold but in such manner as will advise purchaser of its true character.

3. Hotelkeepers shall display signs in conspicuous places.

4. No license to sell is required.

5. If weight is given it should be correct weight.

### West Virginia

1. Oleo to be sold in this state must be colored pink. (This statute, however, is said to be unconstitutional as being in violation of the Constitution of the U. S. Art. 1, Sec. 8.)

2. All packages required to be marked with name of substance "Oleo" or "Butterine."

3. The fact that it is not made wholly from cream or pure milk must be marked on package or a label with the same must be delivered to customer.

4. No license to sell required.

5. If weight of package given, should be correct weight.

REG. U.S. PAT. OFF.

*"I'se in town, Honey!"*

It takes just a few minutes to bake a sizzling breakfast of fragrant, brown Aunt Jemima Pancakes.

A little water, a little flour, and the batter is ready for the griddle. Every ingredient — even milk — is ready mixed in the red package.

**Aunt Jemima Pancake Flour**

Copyright, 1919, Aunt Jemima M. Co., St. Joseph, Mo.

### Wisconsin

1. Prohibits sale of Oleo colored in imitation yellow butter. Must be free from coloration or ingredients that causes it to look like butter.

2. Tubs, etc., shall have placard on which is printed in uncondensed Gothic letters not less than 1" in length the words "Oleo" or "Butterine." If sold from tub, a placard must be placed on the mass. No other word to be used in connection with the word "Oleo."

3. Retailer shall also post in his store a sign with words "Oleo Sold Here," letters to be 4" in length, sign to be approved by the Dairy Commissioner.

4. If sold from wagon, both sides must bear placard with words "Licensed to Sell Oleo." Uncondensed Gothic letters not less than 3" in length are size of type required.

5. Hotelkeeper must notify guests that substance he is selling is not butter.

6. If weight is given on package, must be true weight.

7. No license to sell required.

### Wyoming

1. Artificially colored butterine is prohibited.

2. Prohibits sale of imitation butter or oleomargarine having yellow color or any shade of yellow so that such imitation butter shall resemble yellow or any shade of genuine yellow butter.

3. Requires retail dealer to inform the purchaser at time of sale that article is a substitute for butter and shall deliver to the purchaser a statement clearly printed in English language referring to the article sold and giving a statement that it is a substitute for butter, also giving name and place of business of manufacturer.

4. Requires hotels, institutions, bakeries, etc., using oleomargarine to display a white card at each table in size not less than 10"x14" on which shall be printed in plain black Roman letters one inch in length and one-half inch in width, "Imitation Butter Used Here."

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## The Ancestor of the Orange

The up-to-date orange, plump, aromatic, full of sweet and nourishing juice, would certainly not recognize, even as a distant relative, its ancestor which began its career in distant Hindustan, a little, bitter, seedy berry.

A little more than a thousand years ago this unattractive berry appeared in Persia, where it was looked upon as under the disfavor of the gods.

A little later the fruit was so much improved that it began to enjoy some favor and acquired the rather attractive name "bigarade."

Four centuries later the Spaniards began to cultivate it and brought it to Mexico, where it today has attained an excellence rarely reached elsewhere; but unfortunately, the tree is in Mexico affected by a vicious pest which prevents the importation of the delicious Mexican fruit into this country.

During Moorish times in Spain it was believed that whoever tasted the juice of this luscious fruit would forthwith become converted to Islam.

—*Good Health.*

CANNED SALMON

ALL GRADES
ALL SIZES

*Largest Distributors in the World*

**KELLEY-CLARKE CO.**
New York City Seattle, Wash.

A C I D

Calcium Phosphate
Ammonium Phosphate
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Baking Powder Materials

Epsom Salts, U. S. P.

**Victor Chemical Works**
New York CHICAGO St. Louis
*LARGEST MANUFACTURERS*

**Food Economy!**

F'rinstance!—Son and I packed a lunch with KVP waxed paper wrapped sandwiches and went nine miles out in the country for a weinie roast. Gastronomic capacities howled "Enough" as we reached for the last sandwich—so it was carefully tucked up in the waxed paper, put back in the box and slid in the car. Forgot it for a couple days. Then unwrapped it and ate it—still tasty and not dried to a bone.

Multiply this a million times. Why, waxed paper saves more food than you or I can shake a stick at. Samples on request.

Kalamazoo Vegetable Parchment Company
Kalamazoo Michigan
*"The World's Model Paper Mill"*
Makers of Bond and Waxed Papers and Vegetable Parchment

## James Foust Is Given New Place

Becomes Head of the Newly-Created Bureau of Foods; Other Appointments

James Foust, since 1907 state dairy and food commissioner of Pennsylvania will be chief of the newly-created bureau of foods; Secretary Frederick Rasmussen of the Department of Agriculture of that state announced recently. The dairy and food commission is replaced by the Bureau of Foods under the law reorganizing the Department of Agriculture.

Mr. Foust, whose home is in Altoona, was first appointed by Governor Stuart and has been reappointed by every governor since. While he has brought hundreds of thousands of dollars in fines into the state treasury through suits against violators of the pure food laws, he has the confidence of the food producers and dealers of the state and has a reputation for fair-dealing that won him the support of hundreds of them for reappointment. He has served in the national pure food organizations in various capacities and is generally recognized as an authority on foods.

R. W. Simmers, Philadelphia, is appointed general agent for Philadelphia, Chester, Bucks, Delaware, and Montgomery counties; E. P. Jones, Pittsburgh, and W. F. Hill, Huntington, are named general agents for the state-at-large. C. B. Cochran, West Chester, chemist in the department, has resigned to engage in private business and D. W. Huber, Gettysburg, has been named to take his place with headquarters at Harrisburg.

## The Ancient History of the Bean

The ancient Egyptians worshiped the bean because of its resemblance in shape to the kidney and to the male sex gland. They refused to eat this legume, fearing that in so doing they might be consuming a human soul consigned by fate to expiate its sins by a term of life in this humble plant.

The old Romans used beans in their religious services and threw black beans on the graves of their deceased friends as a part of the burial service. At Roman feasts in memory of the dead, beans were cast upon the altar fire. It was their belief that the odor of burning beans would drive away evil demons.

This ancient superstition in relation to beans still survives among the modern descendants of the Romans. In Italy it is at the present day customary to eat beans on the anniversary of the death of a friend and to distribute the seeds among the poor.

An ancient Jewish ceremonial law forbade the use of beans by the high priest on the day of atonement because of the belief that the eating of beans caused drowsiness.

Pythagoras thought the black spot on the bean to be an emblem of death and warned his followers to avoid eating beans.

A relic of these old superstitions still survives in some of the countries of England, where it is commonly believed that sleeping in a bean field will cause bad dreams or even insanity.

United States Bureau of Labor Statistics reports, "that if a certain amount of food cost $1 at average retail prices of 1913, the same quantity would have cost $1.02 in 1914, $1.01 in 1915, $1.14 in 1916, $1.46 in 1917, and $1.68 in 1918."

**There Is No Comaflouge**

Because **EGLIKE** is a compound egg, containing 51% pure dried egg, compounded with a half dozen or more pure food products, which give it a baking power all its own. For some things it is considered better than eggs.

***EGLIKE---51% Egg***

is sold as a compound egg. Its price is based upon cost of egg. **EGLIKE** is now recognized by most aggressive merchants as the product for them to sell.

**THE MARWIN FOOD CO., Marion, Ohio**

THERE IS

CLEANLINESS, HEALTH INSURANCE, ECONOMY AND CONVENIENCE IN

Our **PET** BRAND **Evaporated Milk**

***The Standard of the World***

Wins and Holds Trade on account of its Superior Quality

PREPARED BY

**Helvetia Milk Condensing Co.**

**HIGHLAND, ILLINOIS**

ORIGINATORS OF EVAPORATED MILK

## The Milk Consumer's Responsibility

IT is practically impossible for the Health Department to supervise the care of the milk after it reaches the consumer. The housewife must assume the responsibility for this. Many complaints of bad milk are laid at the doors of the producers when housewives themselves are to blame, by reason of ignorance or carelessness in the handling of milk after it reaches the home, says Health Commissioner Woodward of Boston, in his Health Bulletin.

The consumer should accept no system of delivery which does not bring milk into the home in bottles. All other methods of handling and delivery are obsolete and represent ignorance or carelessness on the part of the dairyman.

There are four general conditions to avoid in handling milk in the home:

1. Placing milk in unclean utensils. Whenever possible milk should be kept in the original container. After the cap on the bottle is removed, another made of paper may be used or the mouth of the bottle may be covered with an inverted drinking glass. The pouring of milk from the bottle to another container, usually not thoroughly clean, means the addition of bacteria and quicker spoilage of the product. Milk should not be poured from the original container unless it is to be used immediately.

2. Exposing milk unnecessarily to the air. Exposure of milk to the air means an increase in bacteria and in foreign material. It also means the absorption of odors from unclean refrigerators and from such foods as fish, cabbage or onions.

3. Failure to keep milk cold up to the time of using. It is the duty of dairymen to deliver milk cold. Unless the housewife receives the milk personally when delivered, she should have an insulated porch box for holding the milk and keeping it old.

4. Exposing milk to flies. Unler no circumstances should milk be xposed to flies. The presence of lies in milk not only makes it filthy, out exposes the person who drinks t to the possible danger of conagious disease.

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Read the October issue of THE MERICAN FOOD JOURNAL for a omplete report of the Twenty-Third nnual Convention of The Amercan Dairy, Food and Drug Officials, eld in New York, Sept. 8 to 13.

Every Kind of
**WARD'S**
FAR FAMED
**BREAD and CAKES**
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

**WARD BAKING COMPANY**
New York Brooklyn Boston Pittsburgh Providence Chicago Cleveland Baltimore

**E. PRITCHARD**
*Packer and Manufacturer of the Finest*
**"EDDYS"**
**BRAND**
Canned Foods, Jellies, Preserves, Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup
Bridgeton, N. J. and 331 Spring Street, New York

**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley**, INCORPORATED Chicago

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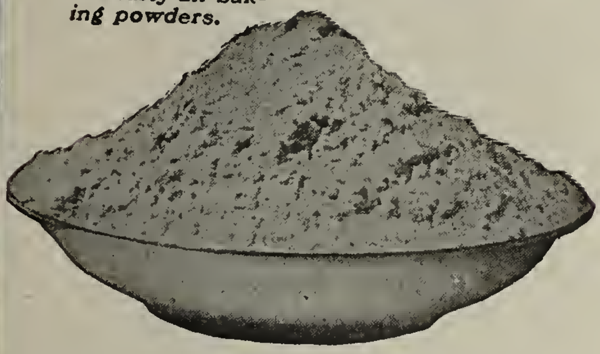

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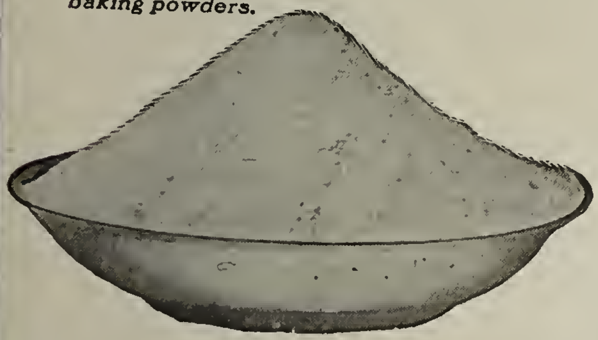

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| In Hen's Eggs | 50c |

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THE AMERICAN FOOD JOURNAL

VOL. XIV OCTOBER, 1919 No. 10

Wm. G. Davies, Editor

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## Constructive Work

WATCHING the minute hand of the clock is apt to make one think that Father Time is a very slow old boy and that even a single day is a long, long period. But when we come to look backward the days and weeks seem to have flitted by so rapidly that we wonder how we ever managed to crowd so much work and accomplishment into them.

It is much the same when we try to note the progress of affairs in the present. Everything seems so futile measured by the immense distance ahead.

In the work of educating the masses to the value of the various foods that they should eat if we look at our progress from day to day it seems at times that we are getting nowhere, and that very slowly. People will neglect to eat the things they should eat and they will persist in eating things that they should not eat. Mothers who would be shocked if told that they neglected their children ignore the truths which the scientists and teachers are offering them every day and when their children grow into a badly developed manhood or womanhood they blame everyone and everything but themselves and their own stubborn ignorance for the conditions. Looking at the situation from day to day, education seems to be very slow and humanity seems to be very unwilling to believe the things that have been learned by the few at a great expense of time and labor.

But as we look backward over a period of even fifteen years we can see that the strides that have been made in the knowledge of nutrition, even by those whom we usually term the "ignorant" and we can see that a wonderful change has taken place.

People such as those who formerly measured food by its filling possibilities, who used to speak of eating "solid food" as though the solider the food the better the nourishment, are now coming to understand that the bulky portion of the edible substance; the part that gives its weight and strength of texture, is not necessarily the part that gives one the nourishment. Milk, fruit juices, vegetable oils and such things which were formerly looked upon as merely a side dish or relish, are now valued for their food and growth properties.

It would have been strange talk to the ears of the people of fifteen years ago to have said that the manufacturer and the distributor were educators. Business was business in those days and the man who made a food product or who sold a food product worried much more about his immediate profits than about the effect upon his customers of eating the thing that he made or sold.

But today we have the manufacturer who spends large sums of money to install a chemical laboratory and a dietetic department in his plant principally to discover and give to the people at large the facts concerning the food value of his product. Many establishments employ trained domestic science teachers who send out vast quantities of literature in the

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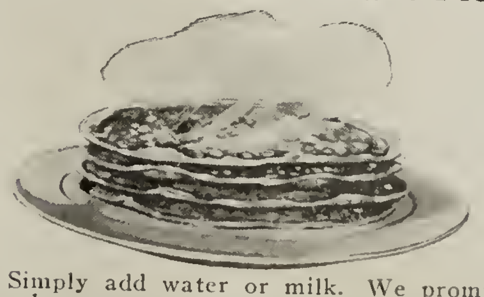

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effort to teach the ignorant or careless the proper methods of preparing foods and serving them. They spend vast sums of money in advertising their product in such a way that the housewife may choose it or leave it alone according to her more or less educated ideas of its nutrient value.

To be sure there is a business side to this phase of the production and distribution work, but it is to the credit of education that in less than a quarter of a century of real constructive effort the business men are beginning to have pretty well learned that they will prosper just in proportion to the degree in which they keep their efforts directed along the lines of creating and selling a good product and educating the public to know why their product is good.

Public officials who are connected with the departments of Agriculture, Federal and State; college and school teachers; county agents and the dietitians of large institutions of learning are responsible for the very high plane on which the manufacture and distribution of food business now rests.

These people are the influential forces in the food world. They are the people who eventually make or break a manufacturer of food products because if his product does not meet with their approval they are the ones who tell the world about their convictions and the world listens to them because it has come to regard their word as authoritative. Advertising to the consumer is an essential method of creating a demand for the product, but telling the officials and the dietitians and the teachers and social workers of the value of the product is the first and most important step in fixing the idea of the products value in the minds of the people.

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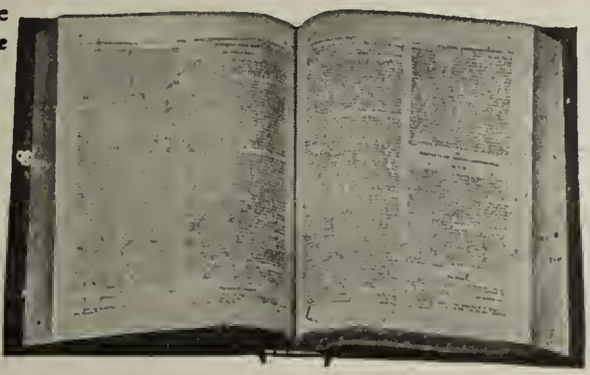

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# ANNOUNCING PUBLICATION

OF THE

# Official Convention Proceedings

OF THE

## American Dairy, Drug and Food Officials Association

*Held in New York, September 8th to 13th*

## IN BOOK FORM

¶ Owing to the high cost of printing and the zone system, which has increased the cost of mailing publications, The American Food Journal has been compelled to discontinue the publication of the verbatim proceedings of the convention of the American Dairy, Food and Drug Officials in its regular issue. But arrangements have been made whereby the American Food Journal will publish the proceedings verbatim in book form if there is sufficient demand for them.

*¶ All members of the Association and those who registered at the last convention and paid the fee for the proceedings will receive the official report without further charge, as heretofore, if it is published.*

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THE AMERICAN FOOD JOURNAL

# UNIFORMITY

## THE KEY NOTE OF THE CONVENTION

and the

## BATTLE CRY OF THE FUTURE

We pledge our unqualified support to the Food and Drug Officials of the various States in their efforts to bring about uniformity between the laws of the various States and the National Law, affecting the sale and distribution of food products, which would insure harmonious relations between the various States and Federal Government and be a constructive movement of immense benefit to food industries throughout the United States.

**NATIONAL CONFECTIONERS' ASSOCIATION**
**of the**
**UNITED STATES**
**111 West Washington Street**
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# SOME FACTS and OPINIONS

Editorials About Questions Now In The Foreground

## The Calder Bill

COINCIDENT with the expression passed by the Association of Dairy, Food and Drug Officials in favor of some method of standardizing the state laws governing the manufacture and distribution of food and drug products, there has been introduced in the United States Senate a bill known as The Calder Bill or Senate Bill No. 3011, which has for its purpose the Federalization of control over all food and drug products which pass in interstate commerce.

In plain terms this bill seeks to give to all products which are not sold in the state in which they are manufactured or produced, and which conform to the standards and conditions of the national Food and Drugs Act, immunity from state and municipal laws and regulations and from the exercise of authority over these products by the officials of states and municipalities so long as the products remain in the package form in which they were shipped. The bill is said to be constitutional by a number of prominent legal authorities.

This law, at first glance, seems revolutionary in character, but a study of the conditions, especially in the realm of food manufacture and distribution, shows that it is, in reality, evolutionary, as it is the attempt to crystallize into a law the sentiment that has been growing for years in favor of one law and one set of regulations to govern the production and dissemination of food.

There is an urgent need of Federal regulation of our food industry of interstate nature — and that is nearly all of it—and the elimination of the trouble to food manufacturers and distributors caused by the many widely different regulations that prevail in the states. Production of food to meet the abnormal needs of this post-war period needs to be encouraged and the best way to encourage it is to give the manufacturer and distributor one well made set of regulations to conform to, that will fully protect the consumer.

It seems to be the general opinion among food control, officials, both Federal and state, that the food industry has been pretty well cleaned up and educated to a high ideal of service so that there would be little danger to be apprehended from this source in undertaking the task of centralizing food control. There is, however, a grave danger to this industry under present economic conditions in continuing our present system and compelling manufacturers and distributors to go to the enormous extra expense in trying to conform to anywhere up to forty-eight different laws for the same product.

There is another evil which the unification of our food control regulations would help to eliminate and it is one that has been pretty generally overlooked by those who still favor unlimited state control. When two or more products which seek in a general way to serve the same purpose are placed on the market and competition between them becomes keen, there is shown a tendency on the part of some officials of many of the states to favor one product above the other and to favor the passage of laws which will give one an unlimited market while placing restrictions around the manufacture or sale of the other. This precipitates a bitter warfare with paid legislative lobbies, the exercise of improper influence on legislators and other officials and the encouragement of practices which, to say the least, are expensive morally and industrially, and add to the cost of all of the products which are made a party to the dispute. Even if one product is better than the other, if both are composed entirely of wholesome body-building ingredients, are sanitarily made and properly labeled, the choice of products should be left to the consumer and the matter of influencing that choice should be left entirely to education and proper trade practices and not made a subject of legislation.

While the conditions in the food industry present few, if any, obstacles to the conscientious advocacy of the passage of the Calder Bill, unfortunately the drug industry must be judged differently. This industry is not as yet on the same high plane as the food industry. There are many organizations and individual drug manufacturers and distributors who are fighting for better conditions in this trade and they should receive all encouragement and help, but there are still too many fake medicine concerns that prey upon the sick and weak who in their eagerness to be helped spend their money freely on first one futile or injurious nostrum and then another. A few states have taken this situation firmly in hand and the citizens of these states should not lose the protection which their state laws give them.

As a matter of fact, the development towards the ideal has progressed so well in the food industry and has been so backward in the drug industry that no attempt should be made to govern them both by the same law or set of laws. The unification of the laws governing the drug industry are just as desirable as the standardization of food laws, but because there are so many great evils in the drug business that only an immense amount of police work will overcome, there is danger that unless the drug situation is considered separately from the food situation and stringent regulations passed to control the former, the conscienceless fake medicine and nostrum manufacturer will ride into a lot of easy money and injure our race seriously if the bars are let down to him by the same act that seeks to help the food manufacturer to a broader and less hampered road.

### The Calder Bill

To protect interstate commerce in foods, drugs, and medicines, and to extend the provisions of the Food and Drug Acts of June 30, 1906.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no law of any State, city or municipality relating to the adulteration or misbranding of foods, drugs, or medicines or regulating the branding thereof shall apply to, or interfere with, the sale of any foods, drugs, or medicines, in package form, which have been transported in interstate commerce and thereby have become subject to the provisions of the Food and Drugs Act of June 30, 1906 (Thirty-fourth Statutes at Large, page 768), and which are not adulterated or misbranded within the meaning of said Act as now amended or as the same may be hereafter amended, so long as said articles remain in package form and not adulterated as aforesaid and labeled as when transported as aforesaid. The words "in package form," as used herein, shall be held to include the individual package in which or from which the articles are sold to the ultimate consumer.

Sec. 2. That all of the provisions of the Food and Drugs Act of June 30, 1906 (Thirty-fourth Statutes at Large, page 768), are hereby extended so as to apply wherever applicable to all foods, drugs and medicines in package form which have become subject to the provisions of said Act until said products have been sold and delivered to the ultimate consumer thereof."

## The Butter Standard

THERE seems to be a widespread misunderstanding as to what happened at the convention of the American Association of Dairy, Drug and Food Officials, held in New York in September in regard to the butter standard. Even some of the men who were present at the meeting seem to think that the association went on record as favoring the continuance of the present legal standard of 82.5 per cent butter fat in butter.

What really happened was this:

The association committee of three that had been delegated to meet as a part of the joint standards committee consisting of three representatives from the agricultural chemists, three from the U. S. Department of Agriculture and three from the Food Control Association, reported that the joint committee had discussed the standard which is now fixed by law. They then incorporated in the report the text of that part of the law which refers to the butter standard.

President Purcell asked Chairman Ladd if it was the intention of the committee to make a recommendation in favor of the standard of 82.5 per cent and Dr. Ladd replied that that was not the intention of the committee, that they were merely calling attention to the fact that the law fixed the standard at 82.5 per cent butter fat.

There was some discussion of the practicability of making butter conform to so high a standard after which the report was accepted as read.

The effect of this is to leave the Food Control Officials just where they were before—that is, without having committed themselves as to whether or not they favored the continuance of this standard.

There is considerable dissatisfaction being freely expressed by the members of the dairy industry over the butter standard of 82.5 per cent. Many claim that this standard is too high and that it is impossible to make butter to conform to it.

It was pointed out at the convention, however, that tolerances were allowed which make it possible for the honest butter manufacturer to keep out of the clutches of the law. Nevertheless, as the food industry generally looks to the members of the Dairy, Food and Drug Association for guidance in the establishment of food standards, this association ought to go on record either as favoring the 82.5 per cent standard or in favor of a revision to a lower butter fat content. No one should know better than they what standard should be maintained.

## Food Control Publicity

DOES the public know what the food control officials of the several states are doing?

This is a pertinent question at this time and one that was discussed very ably by Commissioner James Foust of Pennsylvania at the recent food control convention. The speaker said in effect that there were many chances for publicity, not notoriety, which were being overlooked by many of the officials with the result that the public, as a matter of fact, knows but very little about what the food official is doing and consequently he gets but little of the public's support.

Judging from some of the reports that come to the desk of the editor of this Journal from the food control officials, some of them seem to have but a faint idea of what the public wants to know or will read about their work.

It is a safe rule to go by that the public does not want to read and will not read a long list of statistics showing how many offenders in this and that line of food industry were hailed before the bar of justice. If you doubt this, just spend a few minutes in a critical examination of the newspapers and magazines that are most widely read and see how many statistical tables are presented. You will find very few, if any.

But there are many stories in every food control office—stories that would prove interesting as well as instructive to the general public. When stories of important cases are scarce there are often measures concerning food before the public on which the food control official with his highly specialized knowledge or the chemist of his department could comment in a way that would be instructive and interesting to the layman and at the same time serve to bring the department to the favoral attention of the public.

As far as this magazine is concerned, statistical records should be sent in and while we probably will not publish them, they are filed so that the information will be on hand when needed. But we are particularly glad to get the stories of new laws that are proposed or passed; how an official met a particularly trying situation; stories of glaring frauds that have been uncovered or articles about new discoveries in the chemical field or new ideas for food control. Send them in.

# President Frary Sends Message To Food Control Officials

## New Leader Tells of Work to Be Done and Dangers to Be Avoided During the Next Year

*In this article the new president warns his co-workers against a tendancy toward radical legislation and action which present conditions are apt to inspire.*

*He favors uniformity of laws so long as they are made uniform with the strong and not the weak regulations.*

Guy G. Frary, President American Association Dairy, Food and Drug Officials.

BACKED by twenty-three years of service in the interest of clean, wholesome food and in opposition to every form of fraud and misrepresentation relative to food, the Association of American Dairy, Food and Drug Officials today stands in a position noteworthy for its latent possibilities as well as great responsibilities. In these times of unrest and uncertainty when the fate of nations hangs by mere threads and radicalism in thought and action seems rampant, the members of this association must stand firm to uphold the dignity of our laws enacted for the protection of the public health and the purity of the nation's food supply. Agitation for suppression of profiteering and for price control is almost certain to bring with it attempts to change many regulatory laws. Uniformity of laws and regulations is greatly to be desired, provided, such uniformity shall not be in line with the weakest of our present laws. The extremely high prices of food products give an opportunity which will not be overlooked by those who would gladly see legal restrictions as to quality rendered more elastic.

At the recent convention in New York the two topics most frequently mentioned by speakers were uniformity and co-operation. The movement to establish a standing committee on uniformity of laws and of regulations is directly in line with the prevailing thought during the convention. This, however, must not be taken to mean that the members of our association will be willing to weaken present laws and regulations in the interest of uniformity. On the other hand, all efforts along this line must be toward strengthening the weak, and not toward weakening the strong. Experience seems to demonstrate that the establishing of minimum standards results in the almost immediate adoption of these as maximum. Therefore, it is of the utmost importance that every food official shall be on the alert for attempts to weaken, in this period of unrest and uncertainty, those bulwarks of defense which the experience of the past has built up about our food supply. It is for us as representatives of the consumer to see to it that these bulwarks be not undermined by the greed-inspired arguments of those who would use the present extraordinary conditions as a subterfuge to gain advantages for the future.

This is the time of all times for the official charged with law enforcement to sit tight on his job, administering the laws without fear or favor, working for the betterment of those laws and the harmonizing of the laws of the different states and the federal laws, co-operating with his fellow workers both state and federal to the fullest extent, to the end that sane and sober thought may prevail and we may emerge from these clouded times free from smirch of radicalism and selfish greed."

*GUY G. FRARY,*

**President Association of American Dairy, Food and Drug Officials.**

### Story of the New President's Career

Guy G. Frary, the new president of the Association, began his connection with food control work in South Dakota ten years ago. At that time he was employed on the chemistry teaching staff of the University of South Dakota, and he devoted part of his time to analytical work for the state food and drug department, the headquarters of which had just been transferred to the university. He gradually devoted more time to this work until, in the winter of 1913, he was giving two-thirds time to this work and one-third to teaching.

In March of that year he was appointed State Food and Drug Commissioner by the Governor of the state. Mr. Frary is now serving his fourth term as Food and Drug Commissioner for South Dakota, and during the six years that he has held the position he has witnessed the transition from a department having a staff of six members and an annual appropriation of $9,320, to one with a staff of sixteen members and an appropriation for the current year of $41,950. During this time the scope of the departmental work has been greatly broadened and the laws have been revised and clarified.

During the 1919 session of the state legislature a general weights and measures law was enacted upon recommendation of Commissioner Frary. This law is modeled after the model bill sponsored by the U. S. Bureau of Standards. The same legislature passed a good egg law, the first to be enacted requiring candling of the eggs by the first buyer. This law also defines a fresh egg and was used as the basis from which was developed the proposed uniform good egg law at the conference held in St. Louis last winter. Mr. Frary has taken deep interest in public health problems and was the author of a bill enacted into law in South Dakota three years ago which required every town and city in that state having a population of 750 or more persons to provide and maintain public toilet stations for men and for women. His administration has been characterized by an impartial enforcement of all the many laws referred to his department, but he has felt that clean, pure food was of paramount importance and has, therefore, been especially intent upon enforcing the provisions relative to sanitation.

Mr. Frary is an Iowa product, having been born and educated in that state. He is a graduate of Morningside College in Sioux City and of the State University of Iowa, where he held a university fellowship in chemistry and later was an instructor in the same subject.

# Resolutions Passed At the Convention of the American Dairy, Food and Drug Officials

The first resolution provided that the Association recommends the investigation of all methods whereby the cost of the distribution of food products may be lessoned to the consumer and to further such movement that the association stands ready to assist to the extent of legal powers all movements to that end. Adopted.

Resolution—Congratulating the manufacturers on the reduction of adulteration and misbranding. Adopted.

Resolution—That the Association is opposed to any method of renovating raw material used in food manufacture when this is done for the specific purpose of covering up defects in the finished products. Adopted.

Resolution—That we reaffirm our opposition to the use of ingredients in food products that may render such food products injurious to the consumer. Adopted.

Resolution—That constructive sanitary control is not only necessary to protect the public health but it tends toward the production of more and better food. * * * Adopted.

Resolution — Calling upon the trade to avoid thoughtless or reckless advertising of their product and to see that it is correctly labeled as there is a great responsibility upon them to help in the spread of correct information regarding the value of various food products. Adopted.

Resolution—Regarding sea foods—Authorizing the president and executive committee to co-operate with any reasonable movement to prevent (sea) food loss and for the purification of streams and tidal waters. Adopted.

**New Officers of the Food Control Association**

*President, Guy G. Frary, South Dakota.*

*First Vice-President, James Sorenson, Minnesota.*

*Second Vice-President, Fred L. Woodworth, Michigan.*

*Third Vice-President, R. E. Rose, Florida.*

*Treasurer, Geo. J. Weigle, Wisconsin.*

*Secretary, John B. Newman, Illinois.*

Resolution — Recommending to Congress the consideration of the Uniform Cold Storage Act drafted by the association. Adopted.

Resolution — That a legislative committee of three be appointed to consider the many special food and drug laws now effective in the various states and after confering with committees from the national and state trades organizations to recommend to this association uniform laws and regulations. Adopted.

Resolution—That the incoming president appoint a committee to present to the Federal authorities the opinion of this association that Paragraph One of Section VII of the National Food and Drugs Act permitting the sale of drug preparations differing in strength and other qualities from the respective pharmacoepocial and formulary standards have proven unfortunate in its operation in that it has favored the development of variations in the strength of pharmaceutical preparations and especially of patent medicines and that the tolerances granted in this clause are both unnecessary and prejudicial to the public good. Adopted.

Resolution—Thanking President Purcell for the gavel made of wood grown at Jamestown, Virginia, the site of the first settlement of white people in this country. Adopted.

Resolutions of thanks were passed to the various associations that have extended the many courtesies that have made the meeting so enjoyable; to President Purcell for his indefatigable work for the association and to Secretary Newman for his untiring and strenuous work during the year.

Mr. Flanders' resolution to admit members of trade associations to associate membership of this association was found defective by the resolutions committee and they reported adversly on it. The report was adopted.

# Convention Proceedings of the Dairy, Food and Drug Control Officials

*In this report of the proceedings of the Twenty-third Annual Convention of the American Association of Dairy, Food and Drug Officials only the high spots could be touched. For the official verbatim report of the proceedings see the announcement on page 8 of this issue.*

TO report merely the speeches delivered at any convention would give only a superficial idea of the real significance of the gathering. Any observant person who has had the opportunity of attending the sessions of a number of conventions knows that there is a "feel" or an "atmosphere" which, when fully comprehended, gives a much clearer idea of the importance of the meetings.

This was particularly true of the twenty-third annual convention of the Association of American Dairy, Food and Drug Officials which was held in the Commodore Hotel, New York, September 8 to 13.

While most of the speeches were on the subjects of the chemistry of food, sanitation and the enforcement of laws relating to labels, purity and sanitation, there was a strong undercurrent of feeling that indicated that this phase of food control is nearing its end and that another angle of the food problem is beginning to absorb the attention of food officials, food manufacturers and distributors. This phase is the economic situation.

The arguments about the relative merits of various kinds of foods, expressions as how best to control fakes and frauds in food manufacture and distribution and similar matters that have caused controversies and differencies of opinions in former conventions, were conspicuously absent in this gathering. All through the meetings and in the unofficial gatherings of the delegates outside of the convention hall there was very apparently a feeling that the manufacturers have caught the spirit of the pure food efforts of the past thirteen or fourteen years and that most of them are striving to live up to the letter and spirit of the laws.

This convention, without a doubt, heralded the beginning of the period of close cooperation between officials and food producers. The war experiences, the high cost of living agitation following the war and America's obligation to help feed countries whose source of food supplies has been greatly impaired, have all emphasized the need for greater production and greater marketing freedom for the honest manufacturer. And these were the things that created the undercurrent of feeling which distinguished this convention from other gatherings of this association.

The convention program was most excellently worked out and the association officials who labored so long and faithfully to perfect the details deserved all of the congratulations which they received from individuals and from the delegates as a body for the admirable results. Any convention in America's metropolis is always a difficult affair to manage because the city itself offers so many inducements for neglecting sessions and the fact that all of the meetings were well attended was greatly to the credit of the association program committee and managers. The difficulties of this particular convention in New York were greatly enhanced by the arrival in the city during convention week of General Pershing and the crack division of the A. E. F. and the consequent gala atmosphere of the "Big Burg."

### Monday's Session

The convention opened late Monday morning owing to the late arrival of many of the delegates and the difficulties of securing accommodations as the Commodore Hotel, as well as every other hotel in the city, was crowded to capacity. This tardiness prevented Dr. Royal S. Copeland, Commissioner of Health of New York City from giving the Welcome Address. George L. Flanders, Council for the Division of Agriculture of New York State served very acceptably as a substitute welcomer. His speech was brief but hearty in its expressions of pleasure on the part of New York City and state officials at the holding of the gathering in that city. Hon. Harry L. Eskew of Tennessee responded for the association and thanked the city for its welcome.

The appointment of credentials committee was then made after which the Secretary's report and the Treasurer's report were read.

The Committee on Resolutions, consisting of Commissioner Woodworth of Michigan, Commissioner Sorenson of Minnesota and Commissioner Foust of Pennsylvania was then announced after which Mr. Young, representative of the Merchants Association of New York told of the arrangements that had been made by the merchants and manufacturers of the city for the entertainment features and the educational trips of the delegates. The program announced was a very elaborate one including as the principal entertainment features a Shore Dinner, an evening at the Hippodrome and trips through the big storage and manufacturing plants and to the food railway and dock terminals. After a short discusson on the method for handling resolutions the meeting adjourned until 2 P. M.

### Monday Afternoon Session

Immediately after the opening of the afternoon session Commissioner Sorenson was called to the chair while President Benjamin L. Purcell delivered the president's annual address. This was a notable address because it gave the convention the keynote, "Cooperation," which formed the undercurrent of thought throughout the entire week.

In this speech President Purcell urged a higher duty and greater responsibility upon all of the state food control officials than that of merely being police officers for the enforcement of laws. He said in part:

**"Food officials must realize that there is a field in addition to police**

work that is practically uncovered by the several State Food Departments today, and in which they can render a service equally as important as that which they perform when seeking cases of misbranding and adulteration.

"The field referred to is the opportunity for food and drug officials to carry some real constructive aid to the manufacturer and distributer of foods by helping to overcome the difficulties that are met in all factories and food distributing houses; by conferring with the owners with the idea of offering such suggestions as will tend to improve the manufactured product; to effect savings by the utilization of by-products and to explain the necessity for and economic value of sanitation in the manufacture, storage and distribution of food products.

### Educational Work

"A great many of the State departments today are engaged in educational work in the promotion of the dairy industry of the several states, and there is no reason why similar educational work should not be carried to the manufacturing plants where foods are prepared.

"The food official should give his active aid and assistance to all movements tending to lessen the cost of distribution of food products to consumers; he should give every assistance to the proper governmental departments by presenting information which will tend to prevent monopolies formed for the purpose of increasing the price of food products.

"There are many other ways by which the progressive food official may do constructive work if he will be on the alert to take advantage of the opportunities which may present themselves to increase his usefulness and perform a real service to all of the people.

"The amendment to our constitution adopted at the last annual convention of the association in Chicago offers an opportunity to all state, municipal and county officials having connection with food and drug control to become active members of this organization, with the full privileges of membership that the state and federal representatives enjoy.

"We have felt especially pleased and encouraged at the expressions of interest we have received from the municipal officials in the enlargement of the membership of this association, and I desire, personally and in behalf of the association, to extend a cordial and earnest welcome to these new members."

Dr. Copeland who was to have been the next on the program with a paper on the subject "The Necessity of Medical Examination of Employees of Food Manufacturing, Storing and Dispensing Establishments," was unable to be present as he was on the city committee arranging for the welcome to General Pershing and his place was taken by Dr. Louis J. Harris, Director of the Bureau of Venereal Diseases of New York.

Dr. Harris told of the development of the department for examining food handlers since 1915 when the work was first started. He said that there are about 750,000 food handlers in the city of New York and when the department with its small staff of workers attempted to examine these they found that there were too many for them to take care of. To help this situation physicians were authorized to make examinations and in the year 1918 about 60,000 cases were examined. Of these over 47,000 were examined by physicians not connected directly with the department. With all due respect to the medical fraternity, he said, the results, while valuable from a statistical standpoint, indicated that the private physician is not to be depended upon in the present state of the development of the public health conscience for this work. He urged that to have the work effectively done the burden and responsibility of securing medical examinations must be placed squarely upon the owner or proprietor of the food handling establishments.

JAMES SORENSON
First Vice-President American Association Dairy, Food and Drug Officials

Two in every thousand food handlers, he said, are affected with tuberculosis and a larger percentage with venereal diseases in active form.

"Another Deficiency," he said, "in the work which I desire to present in this connection, is this, that we require (in New York) an examination but once a year, and that is manifestly absurd. The day after we examine a food handler he may acquire an infection and we are not aware of that until another year. * * * Insofar as New York and other communities have contributed by the examination of food handlers to the protection of the community, I think it has been indicated beyond any doubt the absolute necessity of the work, and I would strongly recommend it on the basis of our experience to those who have not yet undertaken the enterprise, with the proviso that the work be undertaken and consigned to those groups who come most intimately in contact with the milk supply, and certainly with the restaurants.

* * * "In connection with the spread of the epidemic last winter it must have been apparent to many that the waiter, not only insofar as he carried disease if he was a positive sputum tuberculosis case, but insofar as he had the pernicious habits of gathering up glasses which had been used by a variety of individuals who handled them with contaminated fingers, and serving again those glasses and eating utensils which are supposed to be clean, and soiling them with the saliva of individuals whose eating utensils he handled a moment before, in that way he was a decided menace. The examination of food handlers is most important to the public health agent who has a wide view of the public health responsibility and this duty is most important because it gives us an opportunity to advise and instruct a very important group of individuals in our community. It is not only that we may discover disease in them, but we may also bring them into our clinic and submit to them, or make them submit, rather, to instruction which they cannot well escape so long as they must be supplied with a health certificate."

George L. Flanders of New York then reviewed the decisions of the Supreme Court on food cases in a very exhaustive manner. His topic was "Important Lessons Taught by Decisions Relative to the Enforcement of the Food and Drug Laws." His review included decisions on oleomargarine cases, the Mary Jane Syrup case, the Hebe case, Egg cases, Cocoa Cola case, and many others. He gave a complete review of practically every important food case that has gone to the Supreme Court and explained the court's decision.

A. M. G. Soule, Chief of the Division of Inspection of Maine, reading a paper on the subject, "Food and Drug Legislation During This Year and What It Seeks to Do," called attention to the fact that forty-six states have food laws of some sort and the machinery for their enforcement, and that forty-one states have had officials in attendance at some time or another at the Association meetings. He reviewed the legislation passed in 1919 by thirty-four of the states particularly complimenting Illinois, Michigan and Indiana on the character of the new laws passed.

Commissioner Barnhouse of Missouri, in his discussion of Mr. Soule's paper dwelt particularly on his efforts to get legislation in his state. He said that his first effort is always to get the legislation in such form that it will be constitutional and not have to be subjected to litigation after passage. He refered to the cold storage situation in his state and said that an investigation had showed that many of the storage houses were filled to overflowing with food of various kinds much of which had been in storage since the early part of 1917. He said that he is going to ask the legislature of his state to pass a new cold storage bill at the next session.

Commissioner Greenbaum of Wyoming, also discussed Soule's paper and said that uniformity of laws throughout the nation seems to be one of the chief factors to be striven for. He called attention to the conflicting nature of the laws of many of the states and the fact that they were not in accord, in many instances with the Federal Pure Food and Drugs law.

The Hon. James Sorenson, Food Commissioner of Minnesota, next read a paper on the subject: "Artificial Coloring in Foods." He urged that artificial coloring should not all be condemned but that efforts should be made to prevent the practice where it is injurious to health or where it seeks to deceive the public. He advocated continued permission of the coloring of confections and soft drinks as he said it made them more palatable and did nothing to injure them. He also urged the continued right to color butter as he said that the public wanted yellow butter. He condemned the coloring of oleomargarine on the grounds that it was not colored simply to make it more palatable, but to deceive the public into thinking that it was getting butter or something as good as butter. He condemned the use of annatto in ice cream to make it look like it was rich in cream and eggs when in reality it was not. In conclusion he said:

> "Let me suggest that it would be to the interests of manufacturers as well as consumers to have the state laws regulating the use of artificial colors in foods conform, as closely as possible, with federal laws and regulations. There is no good reason why state laws cannot be uniform when it comes to regulating such matters as artificial color in foods, and I believe that this association can do much to bring this about. Great uniformity in all laws, state and national, will greatly aid the honest manufacturer and benefit the consumer and simplify the work of the food official."

Surgeon Bolivar J. Lloyd of the United States Public Health Service, speaking on the subject "The Relation of Sanitation of Foods to Public Health," sketched the many possible causes of ill health and inferior development of people as the result of insanitary production and handling of food and the preserving of foods by methods that to a certain extent tend to destroy many of the vitally necessary qualities. He said that while canning, drying and refrigeration of foods are necessary to prevent waste and stabilize our food supplies that these processes should be made the subject of control and regulation to guard the public health. He also urged regulation of the processes of refining sugar, milling grains, polishing rice, etc., to the end that foods deprived of vital health factors may not flood the markets. The possibilities, in fact the probabilities of causing epidemics of disease by the handling of foods by people who are disease carriers came in for special mention, particularly the milk supply. The efforts of the government to eradicate the sources of animal disease received special attention because of the necessity for all of the food which can be produced at the present time as well as a means of preventing certain human diseases which may originate in animals.

FRED L. WOODWORTH
Second Vice-President American Association Dairy, Food and Drug Officials

In regard to the economic conditions of the day he said that the policy of teaching the people to save on food in every possible way should be continued and that so serious is the need for greater food production that every possible supply of food or food elements should be developed.

Before the adjournment of the Monday session Commissioner Rose of Florida presented two resolutions which were read and referred to the resolution committee. One had to do with the withdrawal of the tolerances permitted in the strength of certain drugs and the other had to do with a new standard for citrus fruits.

## Tuesday's Session

The Tuesday morning session opened promptly on time and with a good attendance. The first paper, on the subject "What is the Effect of the National Food Law Enforcement on the Efficiency of the State Department of Control," was read by Guy G. Frary, Food and Drug Commissioner of South Dakota. He said that the good which may be derived by state food control officials from an effective administration of the Federal Food Law will depend much upon these same officials. Should they fail to comprehend the intimate interlocking of state with Federal laws and neglect to avail themselves of the advantages of cooperation, then such officials miss by a wide margin measuring up to the possibilities of their positions. He told how the Federal law had stimulated effort in securing pure food legislation in the states and had helped to eradicate evils which existed before its passage. He said that while special laws were passed in many states to meet special conditions, yet it would be difficult to write a law more comprehensive in its definitions of adulteration and misbranding than the Federal statutes.

Dr. F. C. Blanck, Food and Drug Commissioner then presented a paper on the subject "Municipal Food and Drug Control, Its Functions and Scope." He read quotations from many authorities to show that municipal control of foods and drugs should be an important duty of the municipal health departments acting in cooperation with state and Federal authorities. He also quoted authorities to show that as yet municipal officials are not fully alive to the duties and responsibilities along this line. He ended his paper with the following summary which presents in a concise form the conclusions which his arguments arrived at:

1. Food and drug control, in its application, is a properly exercised function of a municipality.
2. Such local control is logically and properly vested in the department of health.
3. The local agency is best suited and equipped to give the citizens of a municipality that degree of protection to which they are entitled.
4. The municipal authorities are the last protective barrier before the food and drug products reach the ultimate consumer.
5. Full co-operation between the

federal, state and municipal authorities in the control of foods and drugs is essential.

6. A well developed harmonious plan of action involving these three agencies is a requisite to securing proper team play. As Vincent so admirably stated in a trenchant address on "Team Play in Public Health," "The essential thing in team play is that each participant shall not lose his identity but shall subordinate his individual purpose to the common interest."

Dr. Blanck's paper started a discussion that lasted for almost an hour and which was participated in by several of the municipal health officials who were attending the convention under the new ruling which makes them elegible to membership. President Purcell agreed with the principal speaker in his main conclusions but said that in his experience he believed that the best results were to be obtained where the municipalities did not have ordinances covering food and drug control but where the authority of the state laws are properly extended to these men through collaborative appointments for the enforcement of the laws.

Dr. William W. MacDonell, City Health Officer of Jacksonville, Fla., lead in the discussion and told of many of his own experiences where his health control work crossed with food control work. He emphasized the fact that the health officials have a great educational power in teaching the people how to eat and what to eat and in instructing food producers and food handlers in how to produce healthful and sanitary food and how to prevent contamination of it in handling.

Commissioner Sorensen took the floor to state that in his experience there is too much politics mixed up with the municipal officialdom. He said that the food inspectors often found dozens of cases of contaminated milk where the health officials could not seem to find them.

Commissioner Blanck replied to this by saying that he had always found that municipal officials, not only in the health department but in other departments were more ready to abide by the merit system in the appointments of administrative officers than were other departments of the government.

Dr. R. F. Ladd, Food Commissioner of North Dakota next read a paper on the subject "State Food Control," in which he urged closed cooperation between state and municipal authorities to protect the public against inferior and impure food and patent medicines, quack nostrums, etc. He told how lack of education of the producer is responsible for impure and contaminated milk, cream and butter and for the very inferior products which is known as centralized butter and reconstructed butter. He urged that there be a closer union between the forces of the regulatory work and those of the State Department of Agriculture, of the Extension Department of the Agricultural College of the Experiment Stations of the several states, and above all, a close relation with the agricultural colleges and a stimulating of these forces to a realization of their opportunity in an educational campaign extending all the way along the line from the original producer to the ultimate consumer. He scored dairymen, manufacturers and millers who are not seeking to give the public the best they can produce in the most sanitary way but are simply doing what they have to to get their product, before the public and make money. He called attention to the fact that in his state the major part of all regulatory and control work is now assigned to the Agricultural College to be developed and strengthened for the benefit of the public.

JOHN B. NEWMAN
Secretary American Association Dairy, Food and Drug Officials

Dr. Ladd spoke forcibly of the necessity for the control of foods after they have left the stores to go to hotels and restaurants.

"A large number of our people take their meals in hotels and restaurants," he said, "and what real benefit would it be to this great body of citizens if there was food control in our stores, if the pure food product is tampered with in the hotel and restaurant kitchens or if it be handled under insanitary conditions; the milk skimmed or watered, the meat no longer fresh and chemically preserved, saccharin used in pastry and confections and scores of other things such as shipping in fresh products prohibited from being resold in the state; hence we see the necessity of hotel and restaurant inspection including the sanitary inspection as being an essential part of the work of the food department."

In discussing this paper, William G. Tice, M. S., Chief Chemist of New Jersey State Department of Health told of how the food control work in his state is made a department in the Health Department. He spoke very forcibly in favor of centralizing the authority in food and health work and also urged that state laws follow closely the Federal Food laws so as to minimize the difficulties of the manufacturer who ships his product to various states. He also made a plea for greater appropriations by the states for research work.

Dr. Blanck took the floor to heartily endorse the views expressed by Dr. Ladd and to urge that more aggressive measures be taken for the standardization of food control laws in the various states. He told of his recent investigations into the cold storage and other laws of the various states and how he had found many variations in the details of these laws. "I believe that it is mighty essential that this organization have a legislative committee which should be in constant possession of the latest regulations and rulings, the latest laws governing our various food and drug products, so that the official should have some authoritative committee to which he may bring his specific problems," he said.

In his talk Dr. Blanck referred to the model cold storage laws as the product of the Bar Association and cold storage men, and after he had finished Secretary Newman called the attention of the association to the fact that this law was in reality the product of the American Dairy, Food and Drug Officials Association, that it had been drawn by this association and approved by the others.

At this point Dr. Lucius P. Brown, Director of the Food Bureau of New York City, who was not present when his turn on the program came around, was called upon. Instead of speaking on the subject assigned to him Dr. Brown reviewed the history of the food control work and drew from it and from the conditions of high prices, food shortage, etc., that now exist, the lessons that the food control official should be a man who has a working knowledge of the dietetic value of foods, that as most of the larger frauds in the manufacture of foods have been eliminated that the future work will have much to do with seeing that the public get the kind of foods necessary to the preservation of health, and that both the quality and quantity of foods produced and distributed be a matter of their concern.

Mr. Flanders of New York said that he approved of Dr. Brown's sentiments as a whole, but warned that some of the things that Dr. Brown had urged were beyond the power of the officials to do because his powers were limited. He also urged caution in bringing up the matter of Federal control of all food matters, saying that at the present time the Federal Government has no power over the internal operation of food laws in the states and that it will require a constitutional amendment to give it this power.

Roy D. Potts, Specialist in Marketing Dairy Products, U. S. Department of Agriculture, next read a paper on the subject, "Economy of Distribution." He explained the methods of the Bureau in gathering and distributing information concerning the production and sale of dairy products and the effect of this work in keeping prices on a demand and supply basis. He explained the cost elements in the production and distribution and of methods of saving by holding down these costs. He showed how careful operation might effect a reduction to the retailer of about one cent a pound in butter, but said that often the matter of quality was much more of a disappointment to the consumer than the price. He said that he believed that better quality should be striven for.

Dr. Mary E. Pennington then read her paper on "Good Eggs, State and Interstate," which is reproduced on page 25 of this issue.

The subject of "Standardized Milk" was next discussed very thoroughly by Julius Hortvet, State Analyst of Minnesota. His paper showed that he put an immense amount of time and skilled investigation into its preparation and represents, in the minds of many who heard it, one of the best treatises on the subject of standardizing milk that has ever been presented. The paper was accompanied by many charts showing the effect of addition or subtraction of water, skimmed milk or butter fat to the normal milk and any attempt to epitomize it here would fail to give an idea of its real value. However, the trend of the paper can be ascertained from the conclusion or summary, which is as follows:

"There is no disposition to favor legislation or the enactment of rulings which will tend to prohibit or discourage the blended types of milk. Rather there should be instituted at a very early date a careful inquiry into this whole subject with the purpose in view of arranging some plan whereby these so-called standardized or adjusted milks may be sold under proper regulation such as will safeguard the consumer from deception and fraud. Conditions have gone on to such an extent that this subject has become of major importance. Our milk regulations throughout the country are exceedingly lax, our standards are discordant and we are seriously lacking in uniformity respecting legislation and methods of law enforcement. In conclusion it may be a wise suggestion that a committee be appointed by this association with instructions to open up this subject with the purpose of devising a new plan of market milk control which may serve as a model to be adopted by the various states and municipalities."

Geo. J. Weigle, Treasurer American Association of Dairy, Food and Drug Officials.

After the conclusion of Tuesday morning's program the members spent the early part of the afternoon on trips to various storage houses and food manufacturing plants. In the evening the New York Committee gave them a shore dinner and a trip to Coney Island.

## Wednesday Session

Owing to the fact that the Pershing parade was held Wednesday morning, which the members viewed from the windows of an empty store building on Fifth Avenue as special guests of Mosier & Co. of New York, this session was held in the afternoon.

The first order of business on Wednesday was the reading of the report of the Committee of Standards by Dr. Ladd. In the discussion of this report Mr. Sorenson objected to the established 82.5 per cent butter fat standard for butter, saying that it was practically impossible to adhere to it. Mr. Frear said that the committee had no option, not being a law-making body, but that the national standard had been established. Mr. Weigle said that in the practical application of this standard tolerances of one or two per cent were allowed by the courts. A vote was taken and the report was adopted. See page 24.

Dr. Bigelow, Chief Chemist of the National Canners Association, then spoke on the subject, "Recent Progress in Research Work Relating to Canned Goods." Dr. Bigelow told briefly of the work now under way of determining causes and remedies for various evils in canned foods. Discovering causes for and the remedies for the appearance of iron sulphide in canned corn, flat sour, understerilization, etc., were all told about.

Dr. B. J. Howard of the Bureau of Chemistry, U. S. Department of Agriculture, next told of his work in the tomato canneries. He explained how he visits the canning plants and by suggesting new and better methods of handling the product has been able to help the canner eliminate much waste and secure a better product. He described his methods of securing products with a very low bacterial count.

Mr. Phelps of the National Canners Association and of the American Can Co. appeared next on the program in place of President Frank Gerber, president of that association. He told of the development of the canning industry and the organization of the National Canners Association and its growth to where it now has a membership of 3,000 to 3,200 canners. He told of the establishment of the national inspection system of canners by the association and characterized this as the most important and most progressive move on the part of a commercial organization in recent years. He also told of the plan to establish a high standard for canned foods through this inspection and for every canner member of the association to put an emblem on his can which will practically carry to the consumer the guarantee of the association.

Following this speech a discussion arose as to the precautions taken by canners for complete sanitation of factories. Dr. Bigelow replied to a question of Mr. Cannon of Colorado that every precaution would be taken. Mr. Cannon said that he had asked because he intended to have legislation in his state compelling all canneries to screen against flies in the factory. Dr. Barnard of Indiana then said that in his experience he had found that screens did not keep the flies out, but that the most effective method was to install fly traps.

President Purcell then raised the question as to whether or not there is danger of the consumer thinking that the emblem on the can will guarantee Government inspection and approval.

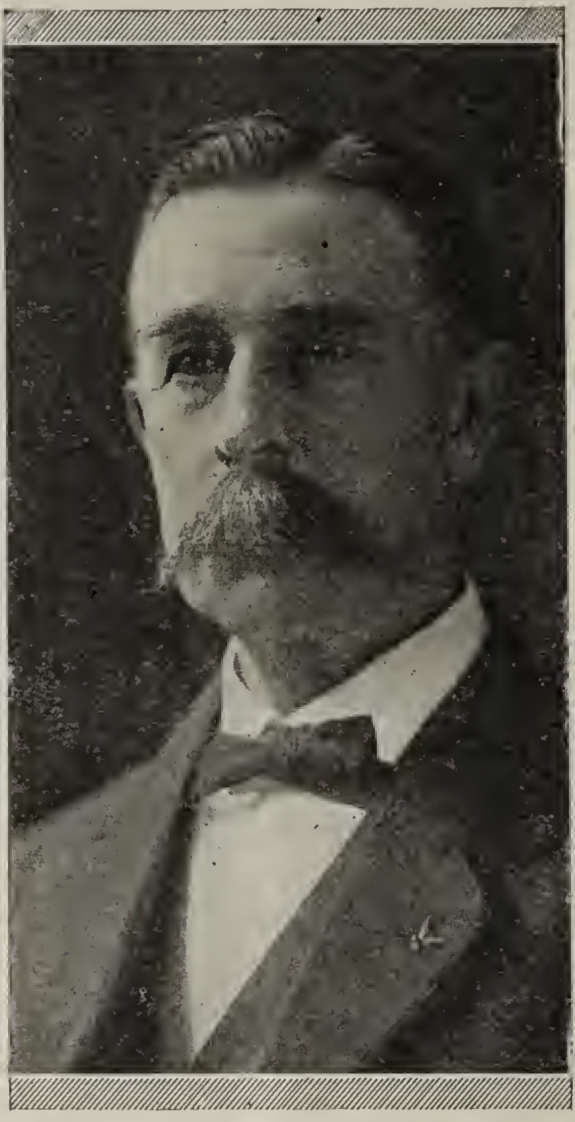
Both Mr. Foust and Mr. Soule as well as Mr. Phelps assured those present that the emblem was intended merely as an association guarantee entirely aside from anything that the government does in the way of inspection, and that the association had no idea of usurping the Government's right to inspection.

Cassius L. Clay, State Analyst of Louisiana, next read a paper on "Sanitary Law and Its Effectiveness on Sanitation of Food." He told of the development of this branch of food control in his state and said that the milk situation had given a great deal of trouble until a regulation was made that all milk cans and containers must be cleaned and sterilized before being returned. This, he said, had eliminated a great deal of the trouble. Another source of worry had been with the soft drink dispensers who served drinks and ice cream in glasses and dishes that had not been properly washed and sterilized. He said that they are now compelled to wash all glasses and dishes and utensils in boiling water and rinse in clean water.

"State Drug Control—Present and Future" was next discussed by R. E. Rose, State Chemist of Florida. He gave the history of the national and state pure food and drug laws with particular reference to the drug end of them.

Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, U. S. Department of Agriculture, spoke on the subject, "Food Containers and Utensils." He stated that he wanted to open up for the food control official what should be a new line of work. He then told of experiments which showed that some containers, cooking utensils, rubber nipples, children's toys, rubber bands for preserving jars, etc., were not made in the best possible way, but that some of them contained poisonous ingredients or substances. He said that most cooking utensils of the porcelain type are glazed inside, and that in a few cases it was found that antimony or other poisonous matter that came off when an acid fruit was placed in the container was in the glaze. Some toys, he said, were made of leads which poisoned the child if placed in the mouth. Antimony was found also in some of the rubber can rings, nursing nipples, etc. He urged that attention be given to these things, and that possibly laws could be drawn up which would protect the public.

W. D. Collins of the Bureau of Chemistry then told some of the details of the experiments which Dr. Alsberg had referred to. His conclusions were that while many of the articles in constant use for cooking or for playthings contain some poisonous matter that may be dissolved, most of them were harmless. Nevertheless he cautioned the officials to be on the lookout for such as might be injurious.



R. E. ROSE
Third Vice-President American Association Dairy, Food and Drug Officials

Ernest Kelly, in charge of Market Milk Investigations Bureau of the U. S. Animal Industry, read an interesting paper on the subject, "Municipal Milk Control." He said that laws governing the dairy industry should be short, specific, understandable and enforceable, and he cited examples of absurd and unenforceable laws. He urged the standardization of dairy regulations. He told of the methods in vogue for protecting the public against contaminated or adulterated milk from the farmers' end of it to the sales end in the cities.

Dr. J. S. Abbott then read the report of the Committee on Co-operation, which was adopted.

Mrs. Jennie Heath of the Housewives League, who was present at the meeting, was called upon by President Purcell for a few words. She spoke briefly of the work of the league and then, referring to speeches that had been made, she said that she was going to watch to see just how far the food control officials would go in enforcing the laws or promulgating new laws for the protection of the public against various poisons in foods and in other than food substances. She also referred to Dr. Bigelow's and Mr. Phelps' speeches in explanation of the canners' inspection service, and said that while the association symbol of inspection was a good thing, she thought that the name of the canner should be placed on each can so that the women could tell where the good food was coming from. "The canners will vouch for their goods," she said, "but my women will ask who will vouch for the canners."

### The Annual Dinner

While the attendance at the annual dinner which was held in the banquet room of the Commodore Hotel on Wednesday evening was not as large as usual, from the standpoint of quality of program the function was a remarkably successful one.

Erickson F. Bushnell, toastmaster, in his introductory speech, spoke of the high cost of living and the labor troubles. He said that many of the people and companies that are suspected and accused of profiteering are working on an extremely small margin of profit. The average groceryman makes only a salary and works twelve to eighteen hours a day for it; wholesale grocery houses make only two per cent, he said, and the packers are working on a smaller margin even than that. Time alone, he said, with increased production, will remedy the evil conditions that now exist.

President Purcell, for the second time during the convention, delivered an address that was remarkable in its expression of progressiveness which gave the food and drug officials an entirely new viewpoint on their duties. He spoke of the development of the tendency toward honesty on the part of manufacturers of food products and emphasized the fact that this relieved the official of much of the detail work of policeing food manufacture. He urged that in view of the great need of increased production that the official seek to make the laws of his state conform as nearly as possible with the laws of other states and with the federal laws so as to relieve the manufacturer and distributor of many of the difficulties which now face him because of the diversity of food control laws. He said that this would mean the giving up of many pet ideas by the officials. He urged that when new laws were proposed that they should be passed only if there was an urgent need for them, and then the rights of the consumer and of the honest manufacturer should be jealously guarded.

Mr. Hendershot of the New York Fair Price Committee took Mr. Williams' place on the program and discussed economic conditions that have caused the present high cost of living and he said that the great problem is not production but distribution. He said that production can be speeded up any time that the market is assured and pointed to the results along this line during the war. He decried too much regulation on the part of the government, saying that regulation savored of paternalism and that paternalism is not a good thing in a democracy. He said that his committee had found that the manufacturers and merchants on the whole were trying to be honest and that of twenty-five thousand complaints received of extortionate prices and unfair practices only two reached the courts.

Dr. Alsberg then spoke briefly on economic conditions. He said that this country really had no need to fear foreign competition because America is the only country that has come out of the war with the efficiency of its workers practically unimpaired. European workers have been reduced in numbers by the terrific casualties of the war and those who can return to work have been largely unfitted for their jobs by the years of campaigning. He also spoke of the growing need for more scientists and research workers and urged greater development along this line.

Ellis L. Howland, News Editor of the New York Journal of Commerce, was called upon for a speech and he complimented the association for the progressive attitude that was apparent. He said that in the many years that he had followed their work he had never seen a time when they were attacking their problems in such a broadminded and constructive way. He said that he believed that the demand for pure food came as much from the trade as from the consumers and that only the arousing of consciousness upon the part of the trade was necessary to bring about perfect co-operation between the officials and the trade. To remedy the present high cost of living conditions he believed that all reselling must be abolished and that production should be placed on the basis of cost plus.

A. C. Monagle, former secretary of the American Specialty Manufacturers Association and now secretary of the Franco American Food Co., urged the formation of a League of Rations that should have for its object honest manufacture of food and honorable merchandising practices.

A. M. G. SOULE
Member of the Executive Committee

### Thursday Session

James Foust, chief of the Bureau of Foods of Pennsylvania, was the first speaker. He treated the subject "Publicity of Food and Drug Control" as one of great importance and urged that the official should seek by giving newspapers and magazines the news of their department to acquaint the public better with their work and its benefits to all of the people. Be careful of the statements which will spread a false impression and give the wrong kind of publicity. Keep in touch with the newspapers of the locality and state and with trade publications giving them in a short interesting article the things that will be of interest to the public. These were some of the things that he urged. He also gave a list of "don'ts" the first of which was "Don't print sensational stuff or make misstatements to the detriment of a legitimate business."

"There is no doubt in my mind," said the Hon. Harry L. Eskew in discussing this paper, "that because of the reluctance of Food and Drug Officials to acquaint the public with the details of their department their efforts have been considerably handicapped as to the results that we are seeking to attain."

The discussion which followed the reading of these papers got off the matter of publicity and into the phase of the duty of state officials in the matter of adulterated or unfit food that came into the state in interestate shipment. Dr. Abbott told how his department works and then Mr. Purcell asked what should be done with the United States if it is the offender and he told of a large quantity of hams that were good last February but had molded by the time the Government had offered them for sale. There was a chance of salvage so Mr. Purcell said that he had permitted them to go to other states where the good could be readily salvaged and that some went to Michigan and some to New York. Dr. Abbott said that that was a rotten deal by the government and should not be permitted in the future.

F. L. Woodworth, Dairy Food and Drug Commissioner of Michigan, next took the floor to talk on the subject "Necessity For Council For Food Administrative Offices and Necessary Legal Machinery for the Enforcement of the Dairy, Food and Drug Laws." He said that in his state the permit system is being extended and that it is meeting with the approval of the honest dealers and he predicted that this system would be extended all over the country.

Mr. Frary then told of his experiences in South Dakota and said that when the commissioner is placed on the stand he should not go there with the determination of trying to win the case but should give impartial expert testimony. He also told a number of his experiences with lawyers who knew nothing about the technicalities of the case on trial.

Arjay Davies, president of the National Wholesale Grocers Association, was unable to attend the meeting and sent his paper to be read by Phillipp Carl Staib. In this paper Mr. Davies said that the wholesale grocer is an economic necessity and that he is trying to serve the people not only by giving the variety and choice of foods but by protecting the public as far as he is able from frauds and impure foods. He told of his association's support of the bill to compel the marking of wrapped hams and bacon with the net weight of the meat in the wrapper.

"Food Control From the Standpoint of Human Nutrition" was the subject which Dr. E. V. McCullom of Johns Hopkins spoke on. His paper is printed in full in another part of this issue.

W. W. Skinner, chemist in charge

of the Water Laboratory of the U. S. Department of Agriculture, read a most interesting paper on the subject "The Production of Bottled Sodas." Because of the ease with which a man may start in the bottled soda business and the tendency toward carelessness regarding sanitary conditions shown by many of the smaller bottlers and some of the large ones, he advocated stringent inspection of all plants and the licensing of all bottlers so as to compel cleanliness. He urged that bottling plants be located away from the city districts of heavy traffic and dirt and especially condemned the small bottlers who run plants in barns and other unsanitary places.

In his paper on the "Duties of State Bureau of Markets," Guy C. Smith, director of the Pennsylvania Bureau of Markets, outlined the duties of such bureaus and warned against the too drastic measure for the correction of some of the evils of distribution of goods which now prevail. He spoke of the dangers which lurk in some of the methods now proposed to curb profiteering, mentioning particularly the seizure of goods in storage, saying that while every effort should be made to get those guilty of hoarding for profit that there is a danger that the price of food will be driven higher this winter by forcing out of storage goods which should be kept there until a later date. He urged more complete gathering of facts on which to base the law for the action of the bureaus and said that he did not believe it was advisable for the bureau to engage in the buying and selling of food, but that a line should be drawn between the commercial transactions and advisory, information and regulatory work. Price fixing in normal times, he said, is undesirable as the law of supply and demand would take care of this better.

### All Night Trip

Thursday night is one that will be remembered by many of the delegates to the convention for a long time, as two features made it a red letter night. The first was the show at the Hippodrome where a section of seats had been reserved for the visitors. After the show about thirty of the officials and guests started out on a tour of the New York terminal stations where the vast quantities of food that enter New York every night are handled. This proved to be a walking tour that tested the endurance of those who started and only about six finished shortly after the sun had showed its face over the edge of Manhattan Island.

The party first visited the Sheffield Farms Pasteurizing Plant in Brooklyn, where they were entertained by Samuel H. Huelings, dairy engineer. This trip was made by subway and motors, but after returning to Manhattan Island the visitors had to depend upon their own pedal extremities for locomotion and every subway entrance became a strong lure for those who found their walking abilities taxed too much. Washington street, with its long rows of commission houses, the Erie, Pennsylvania, and Baltimore & Ohio Terminals were all visited and then the party walked the entire width of the island to investigate the fish market.

### Friday Morning Session

Because of the all night jaunt of some of the delegates the Friday session did not open until 10 a. m. Even then there were a number of familiar faces missing.

This meeting was a notable one, being given over to the discussion of problems brought up by representatives of various food manufacturing organizations and it was a great forward step towards the complete understanding between the officials and the food manufacturers.

President Purcell welcomed the trade representatives and voiced the hope that they would bring their problems to the officials with frankness to the end that controversies and misunderstandings between the officials and the food manufacturers and distributors would disappear. He said that while the method of taking care of the problems brought up was not definitely decided upon that there seemed to be a sentiment favoring the appointment of commissions by the new association president to confer with the trades representatives in the locality where the problem was particularly uppermost and that an appeal to the association as a whole could be taken from the decision of the commission if either side to the discussion felt that the decision should be other than the one given.

Douglas Lackey, secretary and treasurer of the American Corn Millers Federation, was the first trade representative to take the floor. He spoke briefly of the war needs that had brought into popular use corn flours and he said that there seemed to be a disposition on the part of some manufacturers to sell corn starch as corn starch flour and thus take advantage of the popularity of the corn flour. He told of some foreign complications that had arisen by this practice and urged that measures be adopted to differentiate the corn flour from corn starch flour so that the buyers would not buy the latter thinking that they were getting the former. He left with the secretary three copies of a brief in which the specific definitions of all corn meal products as worked out by the Food Administration are given and asked the co-operation of the members of the association in the matter of establishing these national grade standards.

Dr. Frank D. Eldred, representing the American Drug Manufacturers' Association, next took the floor. He spoke briefly in favor of further efforts to standardize the drug laws and said that his association would be glad to appoint a committee to co-operate with a similar committee from the officials association to this end.

Mr. Brown, representing the American Feed Manufacturers Association, asked the officials association to co-operate in getting the decimal weight for package feed law placed on the books. He said that his association had gone on record favoring the package which would contain 100 pounds of feed. He said that they favored the Vestal bill now before Congress, but that they believed that the 60, 70, 80 and 90-pound packages mentioned in that bill were not necessary. Discussion brought out the fact that many packages of feed are labeled with the gross weight which includes the weight of the sacks and that many purchasers buy the 90-pound sacks of food, paying the same price and thinking that they are getting 100 pounds of feed.

Mr. Charles V. Dunn, representing the American Specialty Manufacturers Association, aroused a great deal of interest when he spoke on the necessity for a Federal Sanitation Law to go hand in hand with the Pure Food and Drug Act. He said that he did not believe that the state measures were proving entirely effective and that he believed that the long arm of the United States Government was necessary. He called attention to the fact that there are no Federal laws on sanitation and that particularly in the drug manufacturing business there are no sanitary laws on the Federal books and very few on the state statute books.

Mr. Sorenson approved of the speakers suggestions, saying that he found that many butter manufacturers in his state used spoiled cream and were unsanitary in their methods and that some of the larger ones paid the small fines placed upon them by the state without reforming their ways. Other commissioners spoke in favor of the national sanitary measures.

R. U. Delapenha, First Vice-President of the National Preservers of Food Products Association, was called on next and he spoke in favor of the standardization of all food laws. He said that at the present time it would take two or three lawyers to tell each manufacturer what laws he had to conform to in the different states. However, he said that he believed that in view of the present turmoil that drastic legislation should be avoided and that self control should be exercised by the officials as well as by the producers in the application of the regulations now on the statute books. He favored the idea of a regional committee of Food Control Officials to which the manufacturers may appeal.

At the conclusion of this speech President Purcell said that as there was no provision in the law for meeting the expenses of such regional committees, that he thought that, inasmuch as the work of these committees would tend to avoid expensive law suits, that it would be proper for a method to be devised by which the one who appealed to the committee would pay a fee to help defray the expenses.

Mr. Frank Horne represented the Cold Storage Sub-division of the American Warehouseman's Association and presented a brief for the consideration of the association. In the brief he asked the association to favor a resolution with the following definite recommendations to the Agricultural committees of Congress that might be incorporated in a law:

1. The legislation be under the interstate commerce powers and census authority of Congress.

2. The standard definition of cold storage warehouse and articles of food covered, to be used.

3. Provisions for the inspection, supervision and control of sanitary conditions of warehouses and wholesomeness of products by the Department of Agriculture.

4. Requirements for monthly and other reports concerning articles of food in storage and stated reports as to conduct of business rates of storage and other practices of warehousemen.

5. Provisions for suitable marking articles of food entering interstate or foreign commerce with date of receipt and delivery, name and location of warehouseman and the statement that the articles are cold storage goods.

6. Imposition of a seasonable time limit of twelve months on certain articles of food with a provision for a stated extension on inspection of specific lots where justified by the facts.

7. Power should be given the Secretary of Agriculture to make rules and regulations to carry out the provisions of the law.

A. B. Gardiner, Jr., president of the National Association of Ice Cream Manufacturers, presented a brief for his association which included the ice cream standard adopted by his association May 4th, 1918.

There followed a technical discussion of this standard in which many of the officials took part and Mr. Gardiner was thoroughly quizzed on many points. The verbatim report of this will appear in the publication of the full proceedings of the convention. (See page 8 of this issue.)

Mr. Chamberlain, secretary of the Executive Committee of the American Cider Vinegar Manufacturers Association, next presented a brief. He prefaced this with remarks in which he sought to show that this business is in somewhat chaotic condition due to the fact that the present laws are in some instances beneficial to the manufacturer who misbrands and adulterates his goods. He said that adulterations of this class of products are going on and that they cannot be detected. He gave instances in his brief to show that manufacturers are selling adulterated and misbranded products and he asked that a committee be appointed from the Food Control Officials Association to act with a committee from the Cider Vinegar Manufacturers' Association to formulate and have passed a law that will properly govern this product.

W. G. Phillips spoke briefly as a representative of the National Bottlers' Association and urged a cleaning up of that class of bottlers who are putting out unsanitary and impure goods.

Mr. Charles Tressler of the American Meat Packers' Association urged immediate attention of the officials to the meat that is not receiving Federal inspection.

Mr. Lannen represented the Flavoring Extract Manufacturers' Association and expressed the satisfaction of that association with the methods employed by food control officials during the war in helping manufacturers.

No other representatives of trade associations being ready to make a report, Mr. Blank of Maryland then presented a resolution that a committee be appointed from the Food and Drug Officials' Association to meet with similar committees from the trade associations to formulate and endeavor to have passed laws which would standardize the various state laws.

It was suggested by the chair that Mr. Blank change his resolution so that it would provide for a committee appointed from year to year instead of a standing legislative committee and thus avoid the necessity of an amendment to the constitution and by-laws.

Mr. Newman then presented a resolution in favor of a uniform cold storage law.

Mr. Flanders presented a resolution offering the privilege of associate membership to the association to all manufacturers' associations if they will agree to pay the expense of meetings called in their interests.

### Friday Afternoon Session

The session that was scheduled to be held Saturday morning was advanced to Friday afternoon so that some members who had pressing business to leave town Friday night. This was an executive session.

The report of the Committee of Co-operation was discussed, but the discussion was kept off the record.

See page 14 for full report of resolutions.

The election of officers resulted in Guy G. Frary of South Dakota being unanimously elected president. James Sorenson of Minnesota was unanimously elected First Vice-President. Commissioner Woodworth of Michigan was unanimously elected Second Vice-President. Mr. Rose of Florida was unanimously elected Third Vice-President, and Mr. Weigle and Mr. Newman were re-elected Treasurer and Secretary respectively. Mr. Soule of Maine and Mr. Blank of Maryland were elected to the Executive Committee to fill vacancies.

At the round table discussion that followed a motion was passed that a committee of three be appointed to work out the details of the plan to permit commissioners and representatives of the trade to get together on decisions that were not satisfactory to one or the other.

On surrendering the gavel to President-elect Frary, Retiring President Purcell thanked the organization for its co-operation and support and said that he was leaving, not only the association, but the work as commissioner of the State of Virginia.

The selection of the next meeting place was referred to the executive committee. In all probability St. Louis will be chosen.

## Louisiana Farmers Urge Repeal of Tax on Margarine

WHEREAS, the Congress of the United States some years ago enacted legislation imposing a heavy tax upon the sale of oleomargarine when colored as butter is colored and a heavy license upon manufacturers and all dealers in such oleomargarine; and,

WHEREAS, Oleomargarine has come to be recognized as one of our most important American foods, and its value as a food has been determined by chemists and other scientific persons to be equal to, if not superior to butter; and,

WHEREAS, the tax and license imposed by these unjust and indefensible laws amount to a rank discrimination against the farmers who grow the products out of which oleomargarine is manufactured and a rank discrimination against the millions of city consumers who desire to purchase and use a delicious and wholesome food manufactured under Government inspection and guaranteed to be sanitary and pure, at a reasonable price; and,

WHEREAS, there is at this time a feeling of unrest and discontent growing largely out of the high cost of living. Therefore, be it,

RESOLVED, By the Louisiana division of the Farmers' Educational and Co-operative Union of America in annual session at Opelouses, this the fifth day of August, 1919, that in the interest of fair play, justice and right we demand that all such taxes and licenses be repealed by law and the people be given an opportunity to purchase this wholesome food in its most palatable and attractive form and to use it without restriction or discrimination, and be it

FURTHER RESOLVED, That copies of this resolution be sent to our senators and representatives in Congress and copies be given to the press.

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## 19 Per Cent Greater Food Supply

The Federal Trade Commission has reported to Congress that, despite prevailing high prices of foods, there was a greater supply of foodstuffs in the country June 1st, 1919, than on the same date of 1918—the excess being 19 per cent in the combined total of a number of the most important foods in dry and cold storage.

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## Standard's Committee Report

During the past 12 months the Joint Committee on Definitions and Standards, composed of 3 representatives of this Association, 3 of the Association of Official Agricultural Chemists, and 3 of the U. S. Department of Agriculture, have had under consideration many of the definitions and standards contained in Circular 19, Office of the Secretary of the U. S. Department of Agriculture, for the purpose of recommending any changes in the same that appear to be warranted at the present time. The specific articles that have been under consideration are as follows:

- Fruit Juices.
- Fruits—dried.
- Flours and meals exclusive of feeds.
- Ice Cream.
- Jams, Jellies and Sirups.
- Meat Extracts.
- Milk, Butter and Cheese.
- Sausage with cereals.
- Tomato Sauce, Tomato Paste.
- Vinegar.

The milk and cream schedule has been announced by the U. S. Department of Agriculture as Food Inspection Decision 178, a copy of which is attached hereto.

### *Cheese Schedule*

Several changes have been recommended in the cheese-schedule as it appears in Circular 19 referred to. The schedule as amended and adopted by the Joint Committee on Definitions and Standards is submitted herewith for your approval. It is as follows:

### CHEESES

DEFINITIONS AND STANDARDS ADOPTED BY THE JOINT COMMITTEE ON DEFINITIONS AND STANDARDS

September 6, 1919

1. *Cheese* is the sound product made from curd obtained from the whole, partly skimmed, or skimmed milk of cows, or from the milk of other animals, with or without added cream, by coagulating the casein with rennet, lactic acid, or other suitable enzyme or acid, and with or without further treatment of the separated curd by heat or pressure, or by means of ripening ferments, special moulds, or seasoning.

By act of Congress, approved June 6, 1896, cheese may also contain added coloring matter.

In the United States, the name "Cheese," unqualified, is understood to mean Cheddar Cheese, American Cheese, American Cheddar Cheese.

2. *Whole Milk Cheese* is cheese made from whole milk.

3. *Partly Skimmed Milk Cheese* is cheese made from partly skimmed milk.

4. *Skimmed Milk Cheese* is cheese made from skimmed milk.

*Whole Milk Cheeses*

5. *Cheddar Cheese, American Cheese, American Cheddar Cheese,* is the cheese made by the Cheddar process, from heated and pressed curd obtained by the action of rennet on whole milk. It contains not more than thirty-nine per cent (39%) of water, and, in the water-free substance, not less than fifty per cent (50%) of milk fat.

6. *Stirred Curd Cheese, Sweet Curd Cheese,* is the cheese made by a modified Cheddar process, from curd obtained by the action of rennet on whole milk. The special treatment of the curd, after the removal of the whey, yields a cheese of more open granular texture than Cheddar Cheese. It contains, in the water-free substance, not less than fifty per cent (50%) of milk fat.

7. *Pineapple Cheese* is the cheese made by the Pineapple Cheddar Cheese process, from pressed curd obtained by the action of rennet on whole milk. The curd is formed into a shape resembling a pineapple, with characteristic surface corrugations, and during the ripening period the cheese is thoroughly coated and rubbed with a suitable oil, with or without shellac. It contains, in the water-free substance, not less than fifty per cent (50%) of milk fat.

8. *Limburger Cheese* is the cheese made by the Limburger process, from unpressed curd obtained by the action of rennet on whole milk. The curd is ripened in a damp atmosphere by special fermentation. It contains, in the water-free substance, not less than fifty per cent (50%) of milk fat.

9. *Brick Cheese* is the quick-ripened cheese made by the brick cheese process, from pressed curd obtained by the action of rennet on whole milk. It contains, in the water-free substance, not less than fifty per cent (50%) of milk fat.

10. *Stilton Cheese* is the cheese made by the Stilton process, from unpressed curd obtained by the action of rennet on whole milk, with or without added cream. The cheese, ripened by a special blue-green mould, has a mottled or marbled appearance in section.

11. *Gouda Cheese* is the cheese made by the Gouda process, from heated and pressed curd obtained by the action of rennet on whole milk. The rind is colored with saffron. It contains, in the water-free substance, not less than forty-five per cent (45%) of milk fat.

12. *Neufchatel Cheese* is the cheese made by the Neufchatel process, from unheated curd obtained by the combined action of lactic fermentation and rennet on whole milk. The curd, drained by gravity and light pressure, is kneaded or worked into a butter-like consistence and pressed into forms for immediate consumption or for ripening. It contains, in the water-free substance, not less than fifty per cent (50%) of milk fat.

13. *Cream Cheese* is the unripened cheese made by the Neufchatel process from whole milk enriched with cream. It contains, in the water-free substance, not less than sixty-five per cent (65%) of milk fat.

(Continued on Page 44)

# Good Eggs - - - State and Interstate

### By Dr. M. E. Pennington

*Director of Research, Chemistry Laboratory, U. S. Department of Agriculture*

ONE of the most interesting and illuminating papers read before the convention of food officials was that of Dr. Mary E. Pennington, of the Food Research Laboratory of the Bureau of Chemistry in Philadelphia, whose subject was "Good Eggs, State and Interstate." Dr. Pennington said in part:

"In 1899 the average price to the farmer for eggs was 11.15 cents per dozen; in 1909 it was 19.7 cents, and this year it will average around 40 cents. The farmer has developed a deep respect for the returns from his wife's chickens. A carload of eggs, containing 12,000 dozen, is worth, to the consumer, at least $6,000, generally more than that sum. In 1918 we produced 1,921,000,000 dozen eggs. The annual value of eggs alone at conservative consumers' prices would amount to nearly a billion dollars. A tidy sum for madam hen to present to the country, to be augmented by the consumption later of the hen herself, making in the aggregate sacrifice of herself and her sons an addition of approximately one-half the money value of the eggs. This is the industry over which you gentlemen, in your official capacities, can exercise a greater influence than any other single class except the consumers, who are not organized. You are organized.

"The intelligent consumer will hold, and rightly, that it is your duty to banish the rotten egg from market offerings. I hold that it is your privilege to do much more than that; you may also prevent the good egg from becoming rotten. It is not enough, in these days of high prices, to find eggs which are inedible, to destroy them, and to punish those who would sell or buy rotten eggs.

"Of course this view is not new, neither in thought nor practice. However, because of the strides in accomplishment following the pressure during the war years for conservation of foodstuffs it may be well to briefly review the situation, with some of the progressive steps that have gone into its making.

"The late summer of 1917 found us with our cold storages carrying eggs in larger quantity than ever before, and which had gone in at higher prices. It seemed to us that there had been in the flush season a perfect orgy of bidding in the rural districts, particularly in the corn belt, and from Texas to Minnesota the farmer with eggs to sell was sought after. But the warehouses were also full, entirely too full, of frozen poultry. That also had gone in at what seemed then perilous prices. Because of the sudden cessation of certain forms of entertainment and the wave of wartime economies the frozen broilers, especially, found no market. This was promptly reflected to the country, where farmers found no demand for their superfluous young cockerels; and the price of corn was going up by leaps and bounds. Then came the threat, diligently spread by certain people who were more zealous than well informed, that all the flocks would be sold because the price of eggs and poultry to the producer was too low to compensate for the increased cost of feed. Unfortunately this was true for the hens on the Eastern specialized poultry farm, where the hens do no foraging. Fortunately, it was not true for the hard working farm flock of the corn belt, and that is the flock that feeds the country east of the Rockies. In New York city 90 per cent of the eggs received come from states which are not contiguous to New York, and in Philadelphia, surrounded by states rich in general purpose and specialized farms, 60 per cent of the eggs received come from states beyond those touching the borders of Pennsylvania. The professors of poultry husbandry in most of these Mid-West States issued statements to the farmers showing that the receipts for eggs per dozen need not double because the price of grain did double. For example, in Indiana, the cost of feed to produce one dozen eggs increased between 1914 and 1917 64 per cent, but the price paid to the farmer during the same period increased 67 per cent. The farm hen scratched up 40 per cent of her own living and produced only 20 per cent less than the hen on the specialized poultry plant, which scratched for exercise only. It did not take the up-to-date Western farmer long to find this out. In addition, came the world food shortage, the appeal to his patriotism, meatless days and higher and higher money returns.

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## M. E. Pennington Resigns

*Announcement of the resignation of Dr. E. M. Pennington from her position as head of the Food Research Chemistry Laboratory of the U. S. Department of Agriculture will be received with very great regret by all food manufacturers and distributors as well as by her coworkers in the food control departments of the country.*

*Miss Pennington's record acquired by fifteen years of the most valuable service for the government is as unique as it is notable. Although her work has led to suggestions for changes in method of food handling and storing that were almost revolutionary, so thoroughly were her conclusions and her suggestions respected by tradesmen and professional men alike that most of her ideas were followed so far and as quickly as practicable without question, and she received the hearty co-operation of the heads of our largest food industries.*

*She is best known for her research work into the most effective methods for preserving foods by refrigeration while in transportation and in storage. To get first hand knowledge she has traveled the length and breadth of the country many times on freight trains and she has gone to remote farm and dairy sources to study conditions. The new standard refrigerator car is entirely the result of her research work and suggestions resulting therefrom.*

*Although Miss Pennington leaves the government service she will continue in much the same line of work as she will have charge of the research laboratories of a large importing corporation that will bring to this country a very light wood from Central America which has unusual insulating properties and will be used largely in the manufacture of refrigerators and in lining the bottoms of fishing boats which carry ice so that fish may be iced immediately after catching.*

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"The farm hen does not demand an eight-hour day; she is after the 40 per cent of her ration which she can find on the range and in the farm waste from dawn until dark. But after she has produced the egg, which is almost invariably a good

PHOTO BY C.F. ALLEN 216 W. 104 ST. NEW YORK N.Y.

Food Control Officials an

egg, man goes on with her job, and then the trouble begins.

### Separating Good From Bad

"For years the United States Department of Agriculture has preached and proven that good care of eggs from the farm to the consumer pays. It has shown the farmer, the huckster, the country storekeeper and the shipper how to candle eggs to separate the good from the bad; how to grade and case for market; how to load cars to prevent damage in transit and how to economically refrigerate to prevent deterioration. It has urged buying eggs on a quality basis, not just anything that has an egg-shell around it. Each year added converts to the doctrine of better handling, but the industry is enormous and broadcast, and, like all industries. it has its yellow-streaked participants who will play crookedly unless there is a law which may catch them and administer its prescribed punishment. Hence, when this war demand for eggs was met by a phenomenal increase in production. it behooved all of us to devise ways to efficiently and quickly minimize the appalling waste which characterizes the distribution of this product.

"The Food Administration was specifically charged to prevent waste of foodstuffs. Therefore, it could, and did, take the initiative in asking the co-operation of the Department of Agriculture and of the state food commission in devising ways and means to save the eggs which the laying hens, deferred from a too early slaughter by the famous order of the Food Administration, were fairly raining upon the Mid-West from Texas to Minnesota.

"Indeed, the response of the country in 1918 to the demand for eggs to save meat for the armies and the Allies, in view of the shortage of egg case shook, of strawboard for fillers and flats of refrigerator cars to carry the cases and of locomotives to haul the cars, might have been a calamity instead of a benefit. Any heavy financial loss to the farmers just then would have been a serious psychological possibility. The eggs had to be got to market in good condition; also, every single egg was needed. Neither space nor power could be wasted to take inedible eggs to market.

### Handling Reform

"A conference of the Food Administration with Federal and State food law officials in Washington in the spring of 1918 resulted in a programme which made every licensee dealing in eggs liable to prosecution unless he candled every purchase of eggs and removed such as were inedible. He was also required to enclose a card with each case of eggs saying when, where and by whom the eggs had been candled. He was told, also, to obey the egg law in his state and the Federal Food and Drugs Act.

"In spite of reduced forces for both law enforcement and educational propaganda, this egg saving campaign went merrily on in almost every state in the Union, with an increase in quality in the product that had to be seen to be believed. In such country districts as abound in Missouri, Kansas, Kentucky and Tennessee, where in July and August whole cases of eggs are received by the small shippers unfit for food, rotten eggs were reduced to an almost negligible quantity. Many shippers, for the first time in their history, made money on July and August shipments. And last, but by no means least, among the immediate benefits of the campaign when, in the autumn, the call came from abroad for eggs for hospital and invalid use we could and did send them 250,000 cases.

"The wiser, more intelligent men of the egg industry co-operated from the beginning. Many doubters drifted into the ranks of the advocates as time went on. And when, with the armistice, the licenses were recalled and the rules compelling candling lapsed, there was a regret sufficiently real to lead to constructive action on the part of the industry itself.

"The legislation based upon 'fresh' eggs, or penalizing the sale of mis-branded eggs, unless accompanied by candling requirements, is apt to be more destructive than constructive when viewed in the light of the greatest good to the greatest number. Such legislation, unless most accurately phrased, is likely to lead to endless court bickerings between laboratory experts. Moreover, until the corn belt ceases to be the corn belt only a very small number of eggs can conform to the layman's usual definition of fresh.

"It must never be forgotten, especially by the people of the Eastern seaboard, whose food supply is brought from an average of three-day freight haul that environment, not time, is the important factor in freshness. The relative rate of decay in two bottles of milk, one in the sun, and are a bit leery about drinkso well known that even the children whisk the bottle out of the sun, and are a lit leery about drinking its contents. So the egg, laid yesterday, may be aged by comparison with an egg laid two weeks ago, but kept clean, dry and under refrigeration. We have personally traced eggs sent in summer time

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t the New York Convention

# Food Control, From the Standpoint of Nutrition

*By Dr. E. V. McCullom*

*Speech Delivered at the Convention of American Dairy, Food and Drug Officials*

RAPID advance has been made in the study of nutrition during the last decade, and it is appropriate that we should discuss in this Convention the question whether the new data which is now in our possession makes it possible or wise to extend or modify the system of food control which has been developed. I must confess at the outset that there are many factors to be considered, and I do not feel able to pass judgment on all of them. I shall try to present these problems rather as a basis for discussion than for the purpose of passing judgment on them myself.

Nutrition studies have established that there are great differences in the value of the proteins from different sources. This has been demonstrated in a marked way for the isolated proteins from different foods by the studies of Osborne and Mendel and of Johns and Jones. The mixture of proteins present in natural foods have been studied with like results in my own laboratory and at the Wisconsin Experiment Station.

We know that animal proteins with few exceptions are, *when they form the sole protein content in the diet,* superior to proteins from a single seed, such as a cereal grain, a legume seed, or an oil seed. We still lack sufficient data concerning the values of the proteins of several by-products of the milling industry to permit of accurately comparing them with other feeds.

The cause of the inferiority of one protein or a mixture of proteins as compared with another is found to be due to a deficiency of one or more of the amino-acids or digestion products which they yield. There seems to be fairly good evidence that related foodstuffs as the cereal grains or the legume seeds, tend to be deficient in respect to the same amino-acids. The general result to be expected in feeding such mixtures is that they will not enhance each other's values in a very pronounced way, and experiments with animals have in general supported this theory.

It does not seem profitable, because of the paucity of experimental evidence, to attempt to discuss the exact nature of the deficiencies of proteins of different foods. The amino-acid tryptophane, however, seems to be present in plant proteins in amounts below the optimum, and there is a strong probability that the basic amino-acids, argining, lysine and histidine, and the aromatic acids, tyrosine and phenylalanine, are among the principal ones concerned. These in general are more abundant in certain of the animal proteins than in those of the plant kingdom. The proteins of milk, eggs, and meats have not only a higher nutritive value when fed as the sole source of protein than have plant proteins, but animal proteins supplement the plant proteins, generally speaking, better than do other plant proteins, by making good their deficiencies.

This knowledge is of great theoretical and practical value. It rests on a sound basis of animal experimentation, and its interpretation is in great measure possible, because of the great amount of study which has been given to the chemistry of the proteins in several laboratories. One may logically ask whether it is not possible now to introduce into food control a classification of foods and feeding-stuffs similar to that now common in classification of milk to indicate its quality. We classify milk on a basis of cleanliness, as grade A, B and C. Can we not put on the package a label indicating whether the food in it contains proteins of grade A, B or C, this indicating to the buyer a basis of comparison of their values? I believe that this is or will be possible only to a very limited extent. There are too many disturbing factors involved in the actual use of foods to make such a classification of much value.

We do not use a commercial product as the sole article of diet, and the value of it depends in great measure on the nature and source of the foods with which it is combined. These may or may not enhance its value. If a careful consideration of all the data available were given by

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The packers are frequently accused of being large. If bigness is a crime, Armour and Company are guilty of the charge. For, from a small beginning this business has grown to a point where it serves millions—affording a constant, ever-open market to producers—bringing meats hundreds of miles to consumers.

*Armour and Company are large because the livestock industry is large.* Obviously the packing industry must keep pace with the increase of livestock and population growth. As herds increased, the Armour organization kept step with them. New plants were erected in the centers of new stock-raising regions; improved operating methods were adopted; more refrigerator cars were built to carry the food.

Then, with the outbreak of war, the wisdom of this development had a chance to prove itself. Armour and Company and other similar concerns were equipped to instantly meet the War Department's call for food. In addition to shipping over a hundred carloads of meat a day to the Army and Navy, we have taken care of civilian requirements in the usual way.

With an increase in cattle production, encouraged by the Food Administration's high prices, had to come further increased facilities for preparing and marketing not only the meat, but the hides, hoofs and all other parts of the animal.

With the return to normal conditions, these facilities—expanded during the stress of war to provide stock-growers with necessary outlets, and to furnish food in adequate quantities for both Army and civilian needs—are still at the service of the public. They represent a permanent investment, assuring a permanent outlet and thus a permanent supply of best foods at true value prices.

ARMOUR AND COMPANY
CHICAGO

a committee of men most familiar with this field of science it might be possible to prepare a label for a certain article in a restricted list of foods which would read something as follows:

*The proteins of this feed are of grade A if fed with the article in* (1) *to the extent of* (*blank*) *percent of the ration. If fed with those listed in* (2) *to the extent of* (*blank*) *percent they are of Grade B.*

Certainly dried milk, dried buttermilk and tankage, and one or two other commercial feeds would be classified in grade A because of their exceptional value in supplementing cereal proteins. On the other hand some of the cereal concentrates with high protein content would be rated as of low value. It might be worth while for the Bureau of Chemistry to call such a conference to discuss the question whether the time has arrived to attempt such an innovation.

The most important principle which has been established by nutrition studies, namely, that animal production and human nutrition depend more on selecting foods and combining them in such ways as to insure a complete diet, is of greater importance than a simple knowledge of the chemical composition which can be determined by any methods which are available to the food chemist. For this reason the public is being educated in regard to the peculiar dietary properties of the different types of foods, and the manner in which they fit together to make a complete diet. The source of food or feeding stuff is, therefore, of fully as much importance as a knowledge of its composition.

It will, therefore, be of increasing importance that the label shall in the future declare not only the composition of the article sold, but likewise the plant or animal product which it represents. This will make possible a wiser utilization of commercial feeds by those who are studying the results of the experimenters than would otherwise be possible. Shrewd animal husbandrymen are learning that they cannot profitably make use of more than limited amounts of certain high protein concentrates derived from corn or wheat as supplements for the grain. They know that forage plants possess peculiar properties which make them supplement grains much better than corn, gluten or bran or other concentrates derived from grains. They know that some of the animal proteins such as tankage, dried milk, butter milk, dried blood, etc., are worth more than certain other feeds of similar chemical composition when used in conjunction and in the proper manner with the feeds produced on the farm.

The producer of milk and meat is more and more coming to use his pencil and his tables of chemical composition, as well as his knowledge of the proper combinations of foods, in his feeding practice. He has learned from investigators that the high producing cow may and frequently does find the content of lime in her ration the limiting factor which determines her ability to produce milk. The rapidly growing pig may fail to secure enough lime to enable his bones to develop normally. We now know that cereals in general are not sufficiently rich in this substance to meet the demands of the well bred farm animal.

The solution of this difficulty, however, lies in using proper combinations of natural foods, and our knowledge of the chemical composition of the different classes of foods is now fairly satisfactory with respect to the inorganic elements.

The increasing use which animal

(Continued on page 30)

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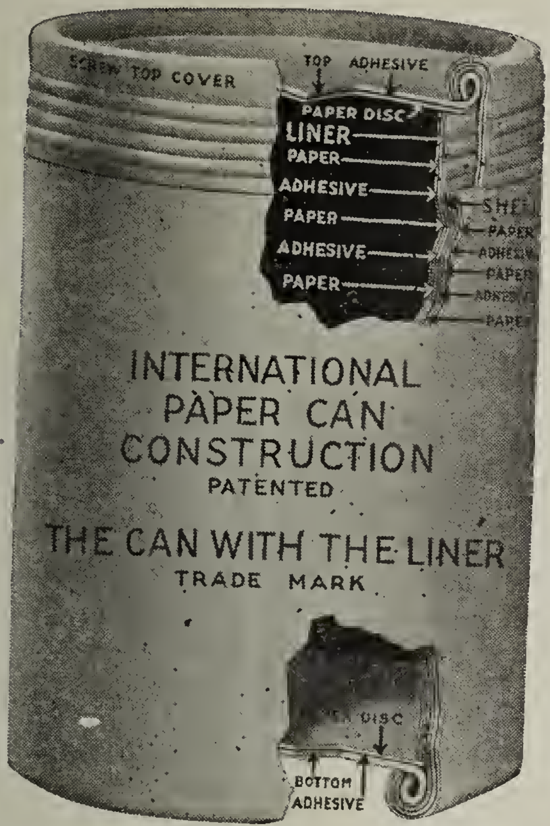

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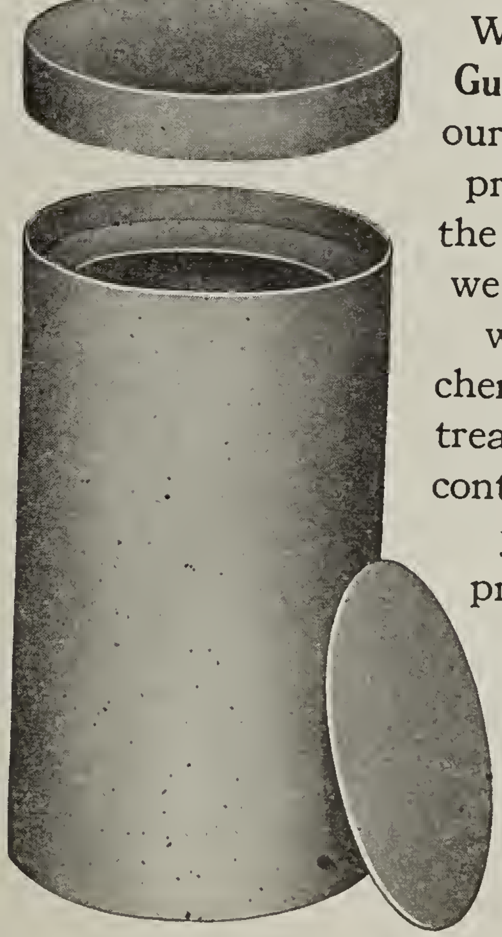

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husbandry men are making of by-products which they purchase for the feeding of animals would seem also to justify requiring that the labels on the bag shall accurately describe not only the source of the contents, but shall declare also what part of the plant or the seed constitutes the article sold. This is another recommendation made with a view to making possible and encouraging the feeder to know his feeds and to take every possible advantage of specific knowledge as it is contributed from time to time by research laboratories.

I have spoken especially of commercial feeding-stuffs rather than human foods because the principles involved in labelling are, I believe, of much greater importance in animal husbandry than in human nutrition. The problem relating to human nutrition are nevertheless of the same general type as are met with in animal production, but with the difference that one almost invariably knows the source and part of the grain or other plant or animal product which is being purchased for use as food. As typical examples I may cite wheat flour and the cereals, dried or canned vegetables and the meats. No specific label is necessary to tell the source of these articles, but with many mixed feeds with trade names, of which there are many scores, all of which are meaningless, it becomes well worth while for the food control chemists to use their influence in correcting an existing evil, namely, that of bringing about a type of labelling of articles which will show the producer of the stock feeds what plant and what part of the plant his purchase represents.

There is an intense interest on the part of the public in the discovery made a few years ago that certain fats, especially those of butter, egg yolks and glandular organs of animals, possess unique dietary properties not found in fats of vegetable origin or in appreciable amounts in the body fats of animals, and in plant tissues but found in relative abundance only in the cellular structures such as leaves which consist of actively functioning protoplasms.

Because of this observation one might assume that it was worth while to attempt to determine in food control work, or perhaps require, a system of labelling which would declare the value of the fat content of any food or feeding-stuff with respect to this unique substance associated with certain fats, and without which nutrition promptly fails. I have given this matter considerable thought, and do not believe that there is any reason to attempt such an innovation. All commercial feedingstuffs with which I am familiar are very poor in this special dietary factor with the exception of alfalfa meal or flour, which is a leaf product. It is necessary for the farmer or feeder to supply this particular dietary factor in the form of a leafy vegetable food; he cannot afford to purchase it in such foods as butter fat, eggs, and glandular organs, for animal production.

On the other hand, the list of foods in use in human nutrition which are of especial value in respect to this one factor is so small and the chances for deception so remote, that I do not believe special measures for the protection of the public are necessary or desirable. For other reasons as well as for this one, we are urging the public to use in the human diet more milk and green vegetables. If they do this they are protected from a dietary standpoint, whereas if they depended on the use of butter rather than milk or leafy vegetables they would correct only a single error in the diet, and leave at least two others uncorrected in many diets common in American households. These errors would lie in the mineral content or protein content, or both.

With respect to the possibility of determining by analysis, or other means more satisfactory than we have been accustomed to doing, the dietary values of the carbohydrate moieties of feeding-stuffs or human foods, this calls for no special comment. We have not at our disposal any new data accumulated within the last few years which would aid us in solving such problems as lie within this field.

The problems relating to the variation in the nutritive value of the fat and carbohydrate moieties in foodstuffs, as well as the character of the proteins and mineral content, are all being solved by the intelligent human being in his own nutrition, and the progressive feeder in animal production by making use as fast as they can become available, of new facts which are being discovered by nutrition experts through animal experimentation. The great factor to appreciate is that the proper combination of foods leads to success, and failure to make proper combinations leads to failure.

Chemical analysis is serving its purpose well as a means of preventing fraud and misrepresentation, but animal experimentation using chemical theory as a guide to procedure, has outstripped chemistry in its yield of practical results. There must always be close association between the data derived from these two methods and each must supplement the other. The rapid multiplication of technical papers which are appearing in the literature in the field of animal nutrition and the dietary properties of foods is very encouraging, and leads naturally in the light of a decade of experience to the hope that it will not be many years until definite and specific statements can be made regarding the relative values of various mixtures of foods in human nutrition and in animal production. At present I see no more promising line of effort to encourage progress in the relation between food control and nutrition than by extending the value of the label in some such way as has been indicated.

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## Bottles Made in the United States

Statistics issued by the War Industries Board state that the production of bottles, jars, and similar products is the leading branch of the glass industry, representing 42.2 per cent of the value of the total glass production in 1914. The introduction of machine methods in the manufacture of bottles and jars has greatly increased the capacity for production in this branch of the industry. In 1917, of the 147 factories operating, 54 were machine factories and 44 hand and machine factories using semi-automatic machines.

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## Jamaica Ginger in Maine

In proceedings brought recently before the supreme judicial court of Maine by the state authorities, it was held that Jamaica ginger containing more than 1 per cent of alcohol is an intoxicating beverage within the meaning of the prohibition law of the state, and that a person selling it violates the law, although the intent was that it should be used as a medicine, or for household purposes, and not as a beverage. The court takes judicial notice of the fact that in the State of Maine Jamaica ginger, whatever its merits may be, has been used as a substitute for intoxicating liquor.

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France has bought and shipped from the State of New York alone 35,000 milch cows. Other thousands are taken from other states. Three hundred thousand will be shipped abroad to France, if the Government allows it. There is something of a food problem in that.

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# The Chalaza Comes To The Front

THAT James Foust, director of Bureau of Foods of Pennsylvania, who spoke on Publicity at the Food Control Officials convention, knows how to get publicity—that is, he knows how to give a story to the newspapers and magazines and get it printed in an interesting way — is evidenced by the amount of publicity which his department gets in his state and throughout the country.

A recent issue of a Philadelphia paper contains the story of the chalaza which Mr. Foust gave out. While it was written facetiously by the newspaper reporter, it is, nevertheless, an instructive article and serves to acquaint the public with the work of his department. The story follows:

Harassed consumers, on the trail of fresh eggs, now have an infallible rule to follow. All that it is necessary for them to do to be sure that they are obtaining the absolutely fresh product is to keep their eye on the chalaza. When the chalaza is on the bum it is certain that the egg has passed the first blush of youth.

That chalaza business is official stuff, promulgated in this state for the first time during any administration. The chalaza, moreover, becomes a proper topic for breakfast table conversation in view of the fact that it has become necessary for the state of Pennsylvania to decide in rather definite terms the standard that a fresh egg must live up to. The legislature passed and the Governor signed a bill making it a misdemeanor to sell a stale egg for a fresh egg.

In order to enforce the law a standard was necessary. There were rules relating to storage eggs. There were regulations that applied to rots and spots. But there was no bill of health for the fresh egg to live up to.

### Chemists Puzzled Mr. Foust

Dairy and Food Commissioner James Foust decided to call a conclave of chemists for the purpose of finding out whether the wise men could by means of the secrets of their craft spot the egg that was just on the edge. Foust bought eggs of all ages. Then he staged the conclave. Secretary of Agriculture Rasmussen acted as judge. Foust was the official egg opener. Around the table there were gathered Charles H. LaWall of Philadelphia, F. T. Aschman of Pittsburgh, J. A. Evans of Erie, William Frear of State College, Carl F. Schoen of Scranton and J. W. Kellogg, of this city, all chemists of wide experience. The chemists sniffed the eggs. They gazed at them with their spy glasses and then they used test tubes. When the sniffing, the gazing and the testing was finished the chemists compared notes and then they told Rasmussen and Foust how old the eggs were. Out of more than 30 trials the chemists were never more than one week wide of the mark. Rasmussen was amazed. He had no doubt that the chemists could tell a very old egg. He could do that. The trick was in telling just how old the egg was.

And then the chemists explained that it was mostly a matter of the chalaza.

Now a chalaza, according to the dictionary, is:

"One of the two spirally twisted albuminous threads that are attached to the lining membrane of an egg at each end and keep the yolk in position with the germinating spot uppermost."

Everyone has seen a chalaza at sometime or other. It may help to remember that the word comes from the Greek for hailstone—not that a chalaza looks very much like a hailstone.

With the chalaza thing in mind the chemists, Secretary Rasmussen and Commissioner Foust proceeded to frame a definition for a fresh egg. After much discussion it was concluded:

### Fresh Egg Defined

"That a fresh egg is one that is understood to have the following qualities:

"Its white is capable of whipping well, in cooking it can be satisfactorily poached or soft boiled, it has not absorbed foreign disagreeable odors, its embryo shall not have developed appreciably. The yolk should be fairly stiff and well rounded, and the white should not be watery and the chalaza should be well defined."

There it is. That is the definition upon which the department will go to bat in enforcing the fresh egg law. As soon as the tired state printer is able to supply the Department of Agriculture with a few copies of the new bill the law will be distributed and the statute will be enforced. And when the law is enforced anyone who attempts to pass an egg with a weakened or watery chalaza stands convicted right then and there.

Once again Pennsylvania has stepped to the front. It is the only commonwealth that has a definition for fresh egg, and it is the only state in the world that has attempted to popularize the chalaza.

Eggs and chalazas, chalazas and eggs. But in the showdown when the chalaza is busted the egg is on the bum. Nature is very wonderful and science has done its bit.

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## Candy Output Lost

AN example of how a manufacturer may lose heavily by failing to take food inspectors into his confidence and take proper precaution against the deterioration of his product because of the presence of worms or vermin is furnished by the seizure of the complete seasons output of candy of a large candy manufacturer of Illinois, this month, by Superintendent John B. Newman of the Illinois Dairy, Food and Drug Department.

One hundred and ten thousand pounds of candy was seized and a very large part of it destroyed, while the balance was sold for fertilizer and soap making purposes at one cent a pound.

The condition of this candy was reported to Mr. Newman's office by Inspector Marley who had run across the candy as it was being put into a cold storage house. The inspector happened to be at the storage plant when several van loads of the product was brought to the door. Such a large quantity of candy being put into cold storage attracted the curiosity of the inspector and he asked one of the men who accompanied the load why the product was being put there. The man replied laconically "To freeze 'em out."

The inspector immediately started an investigation which showed that the candy was in a bad state of preservation and that it was all wormy. The confection was most of it what is known as a peanut candy and the worms had evidently come into the plant with the peanuts.

Evidence that the manufacturer knew of the condition of his product and had tried to cover it up by coating some of the candy with chocolate, leaving the full grown worms inside, was found. His intention was evidently to kill the balance of the worms by freezing.

The entire season's output of his factory, consisting of one hundred and ten thousand pounds, was seized. It was found that some of the product could be salavged for fertilizer and peanut oil for soap-making purposes and this was permitted, the manufacturer getting one cent a pound for a portion of his output. The balance, ten thousand pounds, was in such bad shape that it was burned by order of Mr. Newman.

Further action will probably be taken against this manufacturer who elected to try to cover up his trouble and put something over on the public instead of calling in the food inspectors as soon as the worms began to make their appearance and getting advice as how best to cope with the situation.

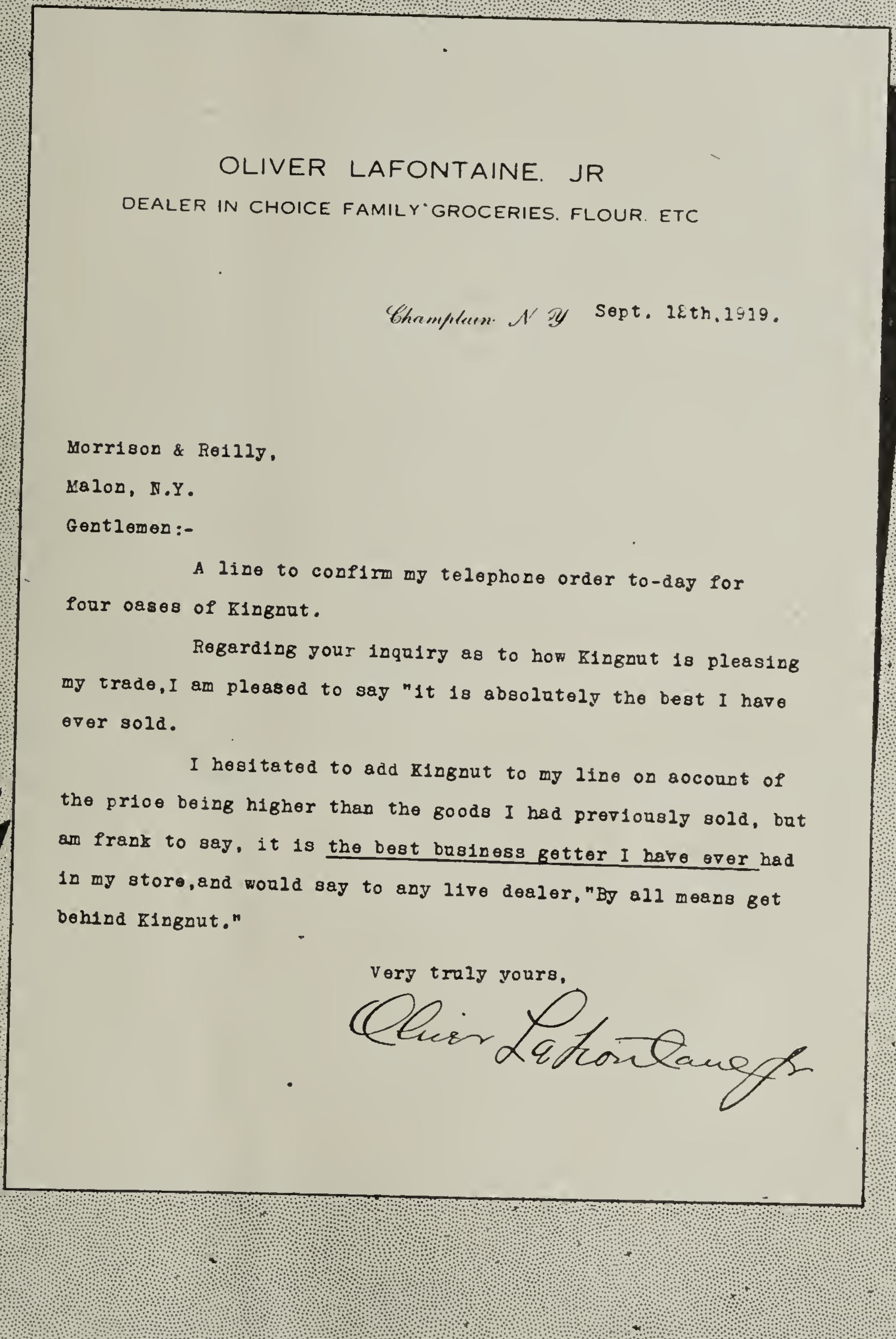
---

When the Senate passed the amendment to the Lever Food Control Bill it eliminated the provision authorizing the Department of Justice to define as profiteering any charge in excess of prices fixed by fair price committees, which it was authorized to establish.

The measure prohibits profiteering or hoarding or destroying necessaries of life, to advance prices and profits — the penalty being $5,000 fine, or imprisonment for two years.

*—the best business getter I have ever had—*

An Unsolicited letter from a Grocer to his Jobber about **KINGNUT** the nut margarin



OLIVER LAFONTAINE, JR
DEALER IN CHOICE FAMILY GROCERIES, FLOUR, ETC

Champlain N Y Sept. 18th,1919.

Morrison & Reilly,
Malon, N.Y.

Gentlemen:-

A line to confirm my telephone order to-day for four cases of Kingnut.

Regarding your inquiry as to how Kingnut is pleasing my trade,I am pleased to say "it is absolutely the best I have ever sold.

I hesitated to add Kingnut to my line on account of the price being higher than the goods I had previously sold, but am frank to say, it is the best business getter I have ever had in my store,and would say to any live dealer,"By all means get behind Kingnut."

Very truly yours,
Oliver Lafontaine Jr

*Manufactured by*

**KELLOGG PRODUCTS, Inc., Buffalo, N.Y.**

# Dr. H. E. Barnard Takes New Position

H. E. BARNARD, Ph. D., who for twenty years has been one of the most active and progressive food leaders of the country, serving in the official capacity of State Food and Drug Commissioner first of New Hampshire and for the last fourteen years of Indiana, on the 1st of October retired from official life and assumed the position of Director of the American Institute of Bakery Research which has just been established, or rather is in the process of being established—with the Dunwoody Institute at Minneapolis, Minnesota.

The broad experiences of Dr. Barnard peculiarly fit him for this work as perhaps no other man in the country is fitted for it. As a food chemist he is classed among the leaders of the country and his advice has been sought by food manufacturing institutions in all parts of the country. As a Food and Drug Commissioner he gained a unique reputation not only for the strictness and justice of his methods of seeing that the food laws were complied with but for the sympathetic and cooperative attitude which he maintained in all of his relations with food manufacturers and distributors. Wherever food manufacturers and dealers showed that they desired to conform to the laws but committed errors only through ignorance Dr. Barnard helped them to get on the right road.

He has also had much practical experience in getting his ideas on food subjects before the public by the medium of printer's ink, as he served for a time as editor of the food columns of the *New York Evening Mail* and was later the editor of The American Food Journal. He also published a news medium from his office in Indianapolis. As a lecturer and speaker at conventions he has been much sought after.

During the period of the war Dr. Barnard received a unique honor on being chosen as practically the only state food commissioner to serve also as a member of the Food Administration.

In addition to all of these accomplishments the record of Dr. Barnard's would not be complete without the mention of the fact that he has had a wide experience as a practical business man in food affairs as he has been connected for several years with a number of business concerns manufacturing food products.

This is a noteworthy list of achievements for one man and undoubtedly this varied experience and the high quality of his accomplishments were the underlying reasons for his being chosen for the important new work which the Bakers Association has outlined.

The Institute of Baking is the outcome of a million dollar fund established by the American Association of Master Bakers to study the problem of the trade. The money was raised prior to the war but the project was suspended temporarily until recently, when it was revived in alliance with the Dunwoody Institute at Minneapolis. It is Dr. Barnard's plan to establish two laboratories, one to be used for purely research work along scientific lines, and the other for the study of the practical trade problems of the baker. Investigations will be conducted into various grains and their flours, yeasts and fermentation, moisture and heat, sugars, syrups, new fatty shortenings, etc., there being a wide field in which to discover better baking facilities.

In this new institution a thorough study will be made of the dietetic values of all kinds of ingredients that enter into bread making and the public will be made acquainted with the dietetic as well as the economic value of the bakers' loaf.

"One of the things that I particularly like about my new work is the fact that I will be working as much for the consumer as for the bakers," said Dr. Barnard in commenting on his new position.

Dr. Barnard has chosen G. Harold Morrison, who for twelve years has been chief of the Food Laboratory of Connecticut, to be chief research chemist, and he is looking for a good practical man to take the position of chief of the trade laboratory.

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## Montana's Regulation of Bottling Shops

Legislation to cover the manufacture of bottled soft drinks is being prepared, with a view to making the bottling works conform to the standards required of other food-serving establishments. Present sanitary laws are declared by various city officials to cover the bottling works, while they are not named specifically, but to avoid controversy the laws will be remodeled. At least one bottling works has been declared insanitary by the Anaconda food inspector and the attention of the state authorities called to the matter. The city ordinance, it is understood, will be made as drastic as the state law.

## Austin Nichols & Co. Reorganizes

THE wholesale grocery trade of the country attaches much importance to the recently completed reorganization of Austin Nichols & Co., one of the largest and oldest wholesale grocery concerns in the United States. With new capital and additions to the executive division the company is in a much stronger position to carry out successfully the greatly enlarged plants of its management.

Mr. Harry Balfe, who has been president of the company for a number of years, becomes chairman of the board of the reorganized company. Mr. Charles W. Patterson, one of the best known men in the business, has been elected president. Although not yet forty years old, Mr. Patterson brings to his new and important position a wealth of experience and valuable knowledge of the wholesale grocery business.

On Feb. 15, 1917, he became manager of the canned goods and grocery branch of the business of Wilson & Co., which was then being organized. Mr. Patterson built up these departments to their present standing. While with Wilson & Co. he held the position of president of the Fame Canning Company, and vice-president of the Wilson Fisheries Company, both of which companies are taken over by Austin Nichols & Co.

Austin Nichols & Co., in the reorganization, acquires the Fame Canning Company, with its nine large modern plants, of which five are in the State of Indiana, three in Wisconsin and one in Michigan, all of them specializing in the production of canned vegetables and tomato products. It also acquires control of the Wilson Fisheries Company, which company has five large up-to-date plants, three of them being located in Alaska, and two on Puget Sound.

The company feels that by acquiring these important plants that it will be in a splendid position to increase its volume of business while also being assured of a steady supply of high quality products prepared under its management. These properties were all acquired from Wilson & Co. by cash purchase and are now being operated by Austin Nichols & Co., the packing company having disposed of all its trademark property and manufacturing rights of the commodities of these several companies.

*The Sign of a Better Method*

THIS company carries out certain high ideals in the manufacture and distribution of these great common necesssities of hygiene:

*Bulk Food Containers* *Clothespins*
*Toothpicks* *EMCO plates for the table*

Sanitation, economy, convenience are all embodied in EMCO lines.

ALL JOBBERS SELL THEM

**ESCANABA MANUFACTURING COMPANY**
MANUFACTURERS
Escanaba, Michigan

**Dehydrated**
**Vegetables**

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
**INCORPORATED**
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U. S. A.

## Sugar Situation

FIGURES just compiled show that during the first nine months of the current year approximately 500,000 tons more sugar was delivered to the domestic trade than was delivered during the corresponding period in 1918. Notwithstanding this 18 per cent increase in distribution, as compared with a normal average increase in consumption of about 4 per cent, the talk of "shortage" persists. These figures, however, are a clear indication of the extraordinary consumption of sugar that has taken place, and the fact must be recognized that directly or indirectly the American people have greatly increased their use of sugar. One angle of this is shown in the heavy increased sale of candy, soft drinks, ice cream, etc., which in some sections for the next three months must now be curtailed.

The west should secure immediate relief from the harvesting of an average domestic beet crop which, this month, will be in full swing. Additional supplies will be forthcoming from Louisiana after November 1st, and while this crop is disappointing, amounting to only 100,000 tons, it will serve to supply the southern territory until the new crop of West Indian sugar is available next January. The eastern territory for the balance of the year is dependent upon the remaining old crop of Cuban supplies, therefore, conservation will have to be practiced, and to meet this condition a distributing committee, with Mr. Frank C. Lowry as chairman, has been appointed at the request of Mr. George A. Zabriskie, president of the U. S. Sugar Equalization Board, to supervise and direct the distribution of all refined sugar by the eastern refiners.

In 1917 and 1918 the eastern cane refiners withdrew from the territory west of Pittsburgh and Buffalo on October 1st, and the middle west was supplied entirely by beet sugar. This year the eastern refiners will take the same step on October 15th, and after that date and until the new year, west of Pittsburgh and Buffalo and north of the Ohio river must be supplied entirely by the domestic beet sugar producers. After November 1st the Louisiana interests will be able to take care of the territory south of and including North Carolina, a part of Kentucky and the southern part of Arkansas, just as they did a year ago after October 24th.

While the committee in charge of distributing the remaining eastern cane sugar has not yet had time to complete its plans, roughly the situation appears to be that, for the remainder of this year about the same quantity of cane sugar will be available for October, November and December distribution to the trade in the territory to be covered, as was distributed in August, September and October, 1918. In other words, buyers in these markets will probably receive about the same amount of sugar each month for the balance of this year, as was delivered to them, say, in October, 1918.

In the west and south freer distribution is possible as the beet sugar interests should be able to distribute by January 1st 400,000 tons of sugar. In the fall of 1917 they sold 350,000 tons of new crop sugar before January 1, 1918. With a larger crop and without the interference that was experienced in the winter of 1917, as a result of the extremely cold weather, a better record should now be made. In 1918 only 200,000 tons were distributed before January 1st; therefore, it will be seen that if the 1917 plan is followed out, considerably more beet sugar can be marketed this year than was sold a year ago.

INSTANT
SYRUP
*Made with*
MAPLEINE

For hot cakes, waffles, corn bread—every occasion when delicious-tasting syrup is desired, use Mapleine. Not only may syrup be made instantly in any quantity, by adding the Mapleine to sugar and hot water, but absolute purity and wholesomeness is assured, and at a cost of about half the price usually paid for syrup of equal quality and flavor.

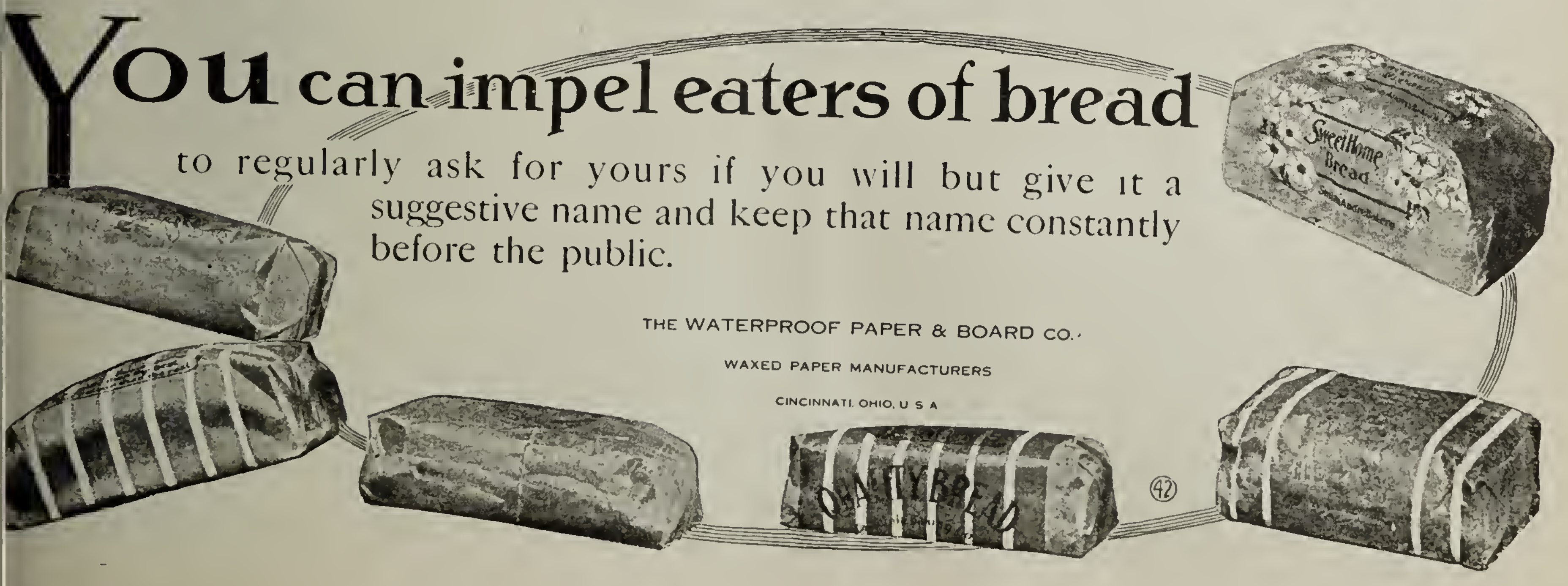
*Mapleine contains no maple sugar, syrup nor sap but produces a taste similar to maple.*

Delicious also in desserts, hot or cold, in ice cream candies, frostings.

*Grocers sell it.*

CRESCENT MFG. CO.
SEATTLE, WASH.

(M-479)



You can impel eaters of bread
to regularly ask for yours if you will but give it a suggestive name and keep that name constantly before the public.
THE WATERPROOF PAPER & BOARD CO.
WAXED PAPER MANUFACTURERS
CINCINNATI, OHIO, U. S. A.
Sweethome Bread
42

# Convention of American Association of the Baking Institute

THE twenty-second National Convention of American Bakers and the first to be held under the new name and constitution of the American Association of the Baking Institute, which was held in Chicago September 23rd to 26th, marked an epoch in the baking industry of the country and will have far reaching results in cementing the bakers of the country into a coherent and progressive organization.

With this gathering there was given to the country the first announcement of the establishment of the Research and American Institute of Baking under the directorship of Dr. H. E. Barnard, for Food Commissioner of Indiana. Many of the most progressive and broad-minded men in this industry have dreamed of and worked for this result for twenty years and the final crystallization of their plans into an actual institute places this organization in the forefront of progressive American business enterprises.

In his address at the opening of the convention President George S. Ward told of the accomplishments of the past year and he hopes for the future. He also discussed some of the troublesome subjects, such as the labor question, and said that the bakers organization must make a stand and maintain the right to operate their industry in a manner that will permit them to meet the public demand and insure for them a square deal.

*No one has worked harder for the establishment of the American Institute of Baking than George S. Ward, former president of the American Association of Baking Industry, and president of the Ward Baking Company. The progress which has been made has been due, in a great measure, to his efforts, although the work of other enthusiastic supporters must not be overlooked. So Mr. Ward was asked to tell in a few words why he has been so interested in this enterprise. He replied as follows:*

---

*I am enthusiastic about the American Institute of Baking because I know it will fill a long felt want for the entire industry; will be a great factor in uniting the industry to a greater and better industry for the future, and will help populate the industry, through its connection with the Dunwoody School, with a high class of young men and give us a better grade of material from which to make our manufacturing superintendents. It will also open wide the door of applied science to our industry, and give us a more definite knowledge about many things of which we know so little.*

*I have personally been interested in research work in connection with the Mellon Institute at Pittsburgh for the benefit of my own company, and the more I see of it and know about it, the more I appreciate what science can do for the baking industry.*

(*Signed*)
*GEORGE S. WARD.*

---

In regard to the changing conditions in crops and trade that are causing much worry he said:

"Then, too, we kept in close touch with the Wheat Director as to possible license restrictions, thinking all the while that every step in the evolution of the scheme was highly important to our members. But this only illustrates once more the uncertainty of present conditions and the importance of being ready, through organization, to meet conditions as they come, for we now find that it is probable on account of the failure of the crop of some of the other countries of the world, and the further fact that the crop of the United States is something like 400,000,000 bushels less than was at first estimated, that the world's price of wheat will not be less than $2.26, and that the baker will, therefore, need no indemnification, as provided for under the wheat bill.

In other words, there is now little likelihood that since the world's price will not be below $2.26 there will be any necessity for the indemnification provisions contained in the bill; and it is probable also that the contract which we closely analyzed and over the terms of which we were so careful, will never become effective, for it is only in the event that the wheat price goes below $2.26 that the contract becomes operative.

Yet the fact that wheat supply conditions over the world have obviated the necessity of the so-called Wheat and Flour Indemnification Bill, does not in any way detract from the excellent work which the committee of this association accomplished in its relations with the Congressional Committee and with the Wheat Director; neither does it mean that this association should in any way slacken in its vigilance. On the contrary, it emphasizes the fact that conditions are constantly changing and that the officials of this association should be in constant touch with every move which is made by Congress and by the Wheat Director, in order that they may be fully informed of the constantly changing trade conditions which the baker finds from time to time that he has to meet, as these conditions may have a decided influence upon the actions of governmental bodies.

National Director of the United States Grain Corporation, Julius H. Barnes, delivered an address that gave the bakers much food for thought as it was replete with information concerning the wheat conditions, the backbone of the baking industry. In speaking of the bakers' position in the high-cost-of-living discussions he said:

"I do not attempt to pass specific judgment on the price level of bread in this country, in detail, and the prices fixed by your industry must still pass the scrutiny and analysis of the local authorities, and our own, where we have reason to believe they are unfair.

"But, as a fair man, I must bear witness that those guides readily at hand indicate no general tendency on the part of the Baking Industry to take undue advantage of the necessities of the public.

"For instance, publications of the Bureau of Labor, with their analysis of average retail prices of foods through the United States, shows as to bread, this:

"That with the average retail price of bread on April 15, 1913, of 5.6 cents per pound, the average price on April 15, 1919, had risen to 9.8 cents per pound; or an increase of 75 per cent.

In the same list, the only foods showing as small a rate of increase were: Milk, at 70 per cent, and various forms of beef products, ranging from 72 to 85 per cent. An average of all the twenty-odd commodities on which the retail food indicator of the Bureau of Labor is based, working out at 85 per cent."

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## The Hen's Contribution

In 1917 the South Dakota hen contributed as much to the wealth of the state as the combined worth of vegetables, fruits, honey, flax and rye, and the poultry products were worth as much as the dairy products, according to E. L. Dakan, professor of poultry husbandry at the state agricultural college. The South Dakota hen lays an average of less than 80 eggs a year.

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The Indiana Canners' Association's regular fall meeting will be held at Indianapolis, Nov. 18 and 19. It will begin with a banquet on the evening of the 18th, business meeting on the 19th.

## Foreign Laws Governing Oleo Margarine

IN last month's issue was published the regulations governing the manufacture and sale of oleomargarine in the various states of this country. We have received many requests from time to time regarding the regulations and restrictions imposed by foreign countries on this product so we are publishing them herewith.

### England

Permits artificial coloration Margarine (oleomargarine).

Limits butter fat to 10 per cent.

Limits moisture to 16 per cent.

Requires retailer use wrapper marked "Margarine" for retail sales.

### Holland

Permits artificial coloration.

Requires word "Margarine" shown on both package displayed for sale and each sale to be wrapped in the wrapper so marked.

### Belgium

Permits artificial coloration.

Levies government tax of 5 francs per 100 kilos or ½ cent per pound.

Establishes 82 per cent fat standard.

Requires use of ½ per cent each Sesame oil and Potato flour. Sesame oil is to make it chemically easy to distinguish Margarine from butter.

Requires retail dealer to properly mark packages.

### France

Prohibits artificial coloration Oleomargarine.

Does not permit its sale in stores selling butter.

Requires retail dealers display their signs and properly mark their packages.

### Germany

Permits artificial coloration.

Prohibits moisture in excess 16 per cent.

Prohibits butterfat in excess 10 per cent.

Requires use 10 per cent Sesame oil.

Requires packages marked "Margarine."

Requires red strips 2 centimeters wide around original package.

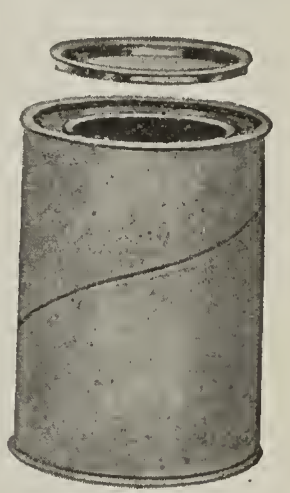
Requires retail dealers display sign announcing sale of Margarine.

### Norway and Sweden

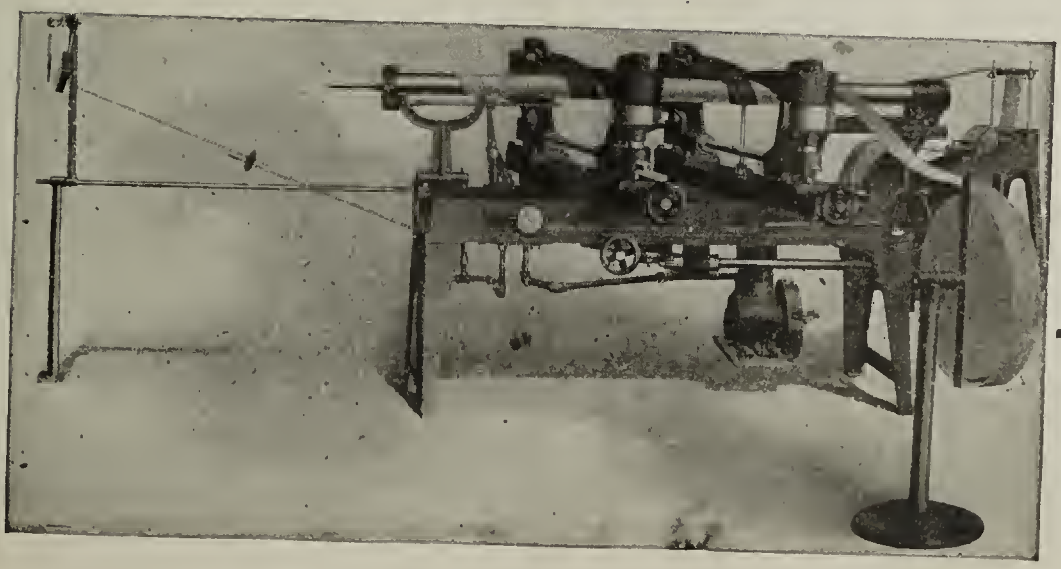
Permits artificial coloration.

(Continued on page 41)

TIN and FIBRE
CONTAINERS
for
Foods—Drugs—Oils
Infinite Variety
Large Capacities
Prompt Deliveries
American Can Company
Chicago New York San Francisco
With Offices In All Large Cities



LEFFLER SPECIAL MACHINERY
Paper Can Machinery
Automatic Tin Can Machinery
Sanitary Can Machinery
Metal Package Machinery
Soldering Machinery
Catalogues on request
Chas. Leffler & Co.
Clymer Street Kent Avenue
Brooklyn, N. Y.



# Notes from the Dietitians Convention

THE second annual convention of the American Dietetic Association was held in Cincinnati, September 8 to 12. The American Hospital Association and the American Hospital Conference joined in the convention.

In opening the meeting, Miss Lulu Graves, the president, gave a brief review of the history of the organization. Miss Graves said:

"Two years ago a small group of struggling dietitians who felt we needed each other's help met for a conference in Cleveland. At this conference an organization was formed. Officers were elected and a constitution was drawn up. Today we have nearly three hundred members—not only dietitians, but many nutrition experts. Every college which teaches nutrition has a representative member. This shows the wide scope of interest taken in dietetics and the work of the dietitians. This week some action must be taken so that it will be possible for the various state and city associations to affiliate in a way with the American Dietetic Association. We must consider what we can give them, and how we shall dispose of it."

* * * * *

Mrs. Mary L. Schapiro, director, Bureau of Home Economics and Dietetics, gave a review of the effect of industrial revolution upon the home and women, showing how, after a woman has been in industry, it is hard for her to adjust herself to housekeeping when she marries. This is more noticeable among untrained women than among trained women. While the teachers in our public schools teach the children cooking, because they do not know the code of dietetic laws and customs of the Jewish people, they do not adapt their teaching to this code. Miss Schapiro then gave us an outline of all the dietary peculiarities of the Jewish religion, showing that these laws were primarily for sanitary and hygienic good of the people, but, in order that they should be followed, they were made a part of the religion. When the poor try to live by these laws, an unbalanced ration results. The food is over-rich, over-spiced, and over-seasoned. We have more gastric disturbances among the Jewish people than among other group. While the Jewish women are very good cooks, they need training in the art of menu-making, so that they will get more minerals in their diets. The Jewish social service dietitian attempts to teach this as tactfully as possible. For the health of the community is dependent upon the health of the individual.

* * * * *

Dr. Elizabeth Campbell, of the Cincinnati General Hospital, after tracing her different interests in dietetics through the years, called attention to the fact that the medical fraternity is now realizing the value of the dietitian as an assistant in treating the sick. She thinks, however, that the doctors still have much to learn in regard to dietetics. Formerly, medical men seemed to think that if the nurses knew too much, they might encroach upon the medical profession, but now the doctors and nurses are rapidly becoming co-workers. The dietitian, too, should become a co-worker with the physician and the nurse.

* * * * *

Miss Eichelberger of Louisville, Ky., spoke of a plan of furnishing a cottage and conducting nutrition classes there. The children are given two meals a day; the progress is recorded on charts; and an attempt is made to reach the mothers in this way. Miss Joseph showed charts she had made in her classes, showing the attendance, the application and the increase in weight. She said children are interested and anxious to please. Miss Winslow suggested that the plan in Kentucky could be improved by trying to reach the children through education as well as through feeding, but the work should not be done entirely through the charity organization. In Chicago, Miss Joseph said, the charity organizations provide extra money for the special feeding cases, where the family have not the means.

* * * * *

The following nominations were made by the Committee on Nomination: President, Miss Lulu Graves, Home Economics Department, Cornell University, Ithaca, N. Y.; first vice-president, Miss Ruth Wheeler, Home Economics Department, Goucher College, Baltimore; second vice-president, Miss Margaret Deaver, Mount Sinai Hospital, Cleveland; secretary, Miss E. M. Geraghty, New Haven Hospital, New Haven, Conn.; and treasurer, Miss Margaret Sawyer, supervising dietitian, American Red Cross, Washington, D. C. The report of the committee was accepted.

## Oysters Adulterated With Water

Oysters shipped into interstate commerce containing added water from soaking or excessive washing violate the Federal Food and Drugs Act, say the officials of the Bureau of Chemistry, U. S. Department of Agriculture, who have investigated commercial practice of handling oysters. Food inspectors have been instructed to watch shipments of oysters coming within the jurisdiction of the Food and Drugs Act in order that the practice of soaking may be stopped.

Some shippers add water to the oysters by soaking them for some time in fresh water containing much less salt than sea water. The oyster will soak up sufficient fresh water to increase its weight and bulk from one-fifth to one-fourth. Four quarts of oysters can be made to fill a five-quart measure by the simple process of soaking.

Some dealers deliberately soak their oysters in fresh water for the purpose of increasing the bulk. Others unintentionally produce the same result by a long process of washing in fresh water. In either case the consumer pays for the added water. Oysters may be washed thoroughly in water of the same salt concentration as that from which they were taken without materially increasing the bulk. Whether done intentionally or unintentionally the addition of water to oysters which are shipped into interstate commerce constitutes an adulteration under the terms of the Food and Drugs Act.

Appropriate action will be taken, say the officials, on all shipments of oysters found to be in violation of the Federal Food and Drugs Act.

Reports giving the results of the investigations into the best methods of handling shucked oysters will be sent to oyster dealers upon application to the Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.

## Sugar Shortage This Year

Experts figure that the world's production of sugar this year will probably be about 37,000,000,000 pounds, against 42,000,000,000 lbs. in 1914.

## OLEO MARGARINE

(Continued from page 39)

Requires use certain per cent Sesame oil; prohibits manufacture in creamery where butter made.

Margarine manufacturer under government inspection.

Margarine must be packed in containers whose length twice their width.

Requires manufacturers and retailers packages be labeled or marked "Margarine."

Requires dealers display signs when they sell Oleomargarine.

### Canada

Permits sale only Oleomargarine free from artificial coloration.

Prohibits preservatives.

Prohibits more than 16 per cent moisture.

Requires both local manufacture and imported to be government inspected.

Requires manufacturers and importers to have government license.

Requires all manufacturers and retailers' packages marked "Oleomargarine."

### Newfoundland

Permits artificial coloration.

Requires packages marked to indicate contents.

Levies a tax of 1 cent per pound.

### Japan

Requires all wrappers or containers to be marked "Artificial Butter."

### Italy

Prevents use artificial color.

Requires manufacturers' and dealers' packages marked "Margarine."

Requires dealers display signs.

### Australia

Prohibits artificial coloration.

Requires product sold in cube form only.

Prohibits over 16 per cent moisture.

Prohibits use of butter except butterfat coming from milk used.

Requires use 5 per cent Sesame oil.

Requires manufacturers' and retailers' packages properly marked.

Requires proper display of signs by retailers.

### New Zealand

Prohibits artificial coloration.

Prohibits butterfat and butter in Margarine.

Requires manufacturers' and retailers' packages properly marked.

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Tartar, though coming through the Arabic, may be Egyptian in origin. The word first appears in Chaucer. Tartaric acid was discovered by Scheele in the Eighteenth Century. Up to 1810 it was known o English chemists as *tartarous,* or *artareous,* acid; and a quotation in which it is for the first time designated as *tartaric* acid is given for hat year.

Every Kind of
WARD'S
FAR FAMED
BREAD and CAKES
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

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Wm J. MOXLEY'S
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The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

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INCORPORATED

## The Freezing of Fish in France

At recent meetings of the food and agricultural and industrial sections of the Association du Froid discussions took place on the installation of cold stores in the devastated regions, the utility of refrigerators in the wine business, in the production of cider, and in chemical and other industries. M. Bigenwald, director of the Lorient fisheries, detailed the difficulties the consumption of frozen fish meets with in France. Generally speaking, the French public is reluctant to buy anything new, on the one hand, and on the other it is certain that the methods of preserving fish simply refrigerated have not yet been perfected. The process of preserving in ice is imperfect, inasmuch as it does not permit of keeping the fish beyond fifteen days from the time of capture. There is ground for seeking to improve the methods by experiments, notably the processes of "dry preservation," like that in the Ottesen system. On this point reference was made to studies undertaken at Lorient by a naturalist of the Sea Fisheries Service on the best methods of preserving fish. M. Bigenwald insisted on the numerous difficulties to be overcome before the consumption of fish in France could be greatly increased.

## Aswell Edible Oil Bill

Representative Aswell, of Louisiana, recently introduced a bill into Congress to authorize agricultural colleges and experiment stations to investigate and teach the art of producing, refining and combining vegetable and animal oils and fats into palatable and wholesome food. It is further proposed that such colleges and stations should be exempted from the imposition of special taxes and the payment of taxes, and provides, in event any such institution shall in the course of such investigations and teaching produce quantities of such foods in excess of its own requirements, such excess may be placed upon the market subject to all the laws, rules, and regulations which are now, or may hereafter be provided for the production, sale, and distribution of such food.

That upon application to the proper authorities by any such agricultural college or experiment station through its duly authorized officer or agent a license for the manufacture of oleomargarine shall be issued to such agricultural college or experiment station without the imposition of any special tax and without the execution of any bond, but such agricultural college or experiment station so licensed shall, through its duly authorized officer or agent comply in all other respects with the laws, rules and regulations governing the manufacture, sale, and distribution of oleomargarine.

## Food Held in Cars at Terminals

USING refrigerator cars for storage houses at freight terminals is holding back perishable foodstuffs from city markets and causing losses to grower and consumer, according to investigators of the Bureau of Markets, United States Department of Agriculture.

A recent report on cars held at terminals made by one of the refrigerator car lines shows that 67 cars were held an average of 4.37 days at Chicago, while figures on 36 cars at Denver show an average delay in unloading of 6.36 days. Assuming that these figures hold at other markets and that the average time for a refrigerator car to make a round trip is about 20 days, it is pointed out that such delays would decrease the available supply of refrigerator cars by about 25 per cent. This, in the face of a present inadequate supply of refrigerator cars, is hampering the movement of perishable products from an acreage in excess of that of past years.

While the Railroad Administration is using every effort to remedy the situation and much can be done to increase the supply of refrigerator cars through speedier unloading, it is pointed out that the supply will still be inadequate and that it is not being increased by new cars at a rate to give much relief. The acreage of perishable crops is increasing each year, making it more imperative that adequate cold storage terminals be constructed for temporary storage so that receivers can immediately unload refrigerator cars upon arrival at markets and send them back to the shippers.

## Bottlers' Convention

The convention of the National Bottlers' Association will be held in Chicago, at the Coliseum, November 6, 7 and 8, during the Beverage Convention, which will last from November 1 to 9.

## Oklahoma Farmers Union Urges Just Laws on Vegetable Oils

WHEREAS, The value of our vegetable oils as food have long been established, and in spite of this, restrictive laws are still in force against their sale and use, therefore, be it

RESOLVED, By the annual meeting of the Farmers' Union of the State of Oklahoma in convention assembled this twentieth day of August, 1919, at Clinton, Oklahoma, that we demand the immediate repeal of special taxes, penalties and restrictive laws now imposed upon these oils and their by-products and that they be given the same treatment in legislation as the animal fats and their products.

## Swiss do not like American Bacon

The American consul at Berne in a report to the Department of State, dated July 1, 1919, stated that "though large quantities of American pork, lard, and salted bacon have been imported into Switzerland and are offered for sale, they do not find especial favor with the Swiss consumer, and are sold at a lower price than similar articles of native production. Swiss people hold American bacon in low esteem." This dislike may be accounted for partly by the preference of the Swiss for hogs fattened on vegetables, and not upon corn and other grains. American packers should study the preferences of the Swiss people when preparing goods for marketing in that country.

---

The Federal Trade Commission recently sent to the canning industry of the United States a questionnaire concerning the spot and future sales of canned foods for the season of 1919, and the answering of this questionnaire, attended as it was with considerable clerical labor, produced some adverse comment among the canners. In order, therefore: that the real purpose of the questionnaire may be understood, the National Canners' Association has made inquiry as to the object in view in sending it out at this time. It is generally known that there is a shortage in many of the staple canned vegetable foods, and there is a well-defined belief that because of this shortage the products of the canners have been and will be the subject of improper speculation and hoarding.

TROCO

Solves Our Greatest Food Problem

The introduction of Troco solves, once and for all, both the question of quality and the price problem.

Both flavor and texture have been brought to perfection. Troco is sweet and delicate. Troco is smooth and fine grained. Users are proud to serve Troco.

Equally important, Troco is a high powered calory food. And we need calories for heat and energy, as you know.

And — the final argument, Troco helps to bring down the H. C. of L. Every pound saves you from 25 to 40 cents, varying with season and locality.

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Troco is made from the white meat of coconuts, the food standby of the Tropic zone. This appetizing product is churned with pure pasteurized milk, our own most highly valued food. The perfected process achieves exquisite flavor — flavor found only in Troco.

Troco is churned daily and shipped on ice. No detail in handling is omitted to insure Troco reaching your table in perfect condition.

Troco is labeled Oleomargarine according to law. But it contains no animal fats — just pure vegetable oils and pure pasteurized milk.

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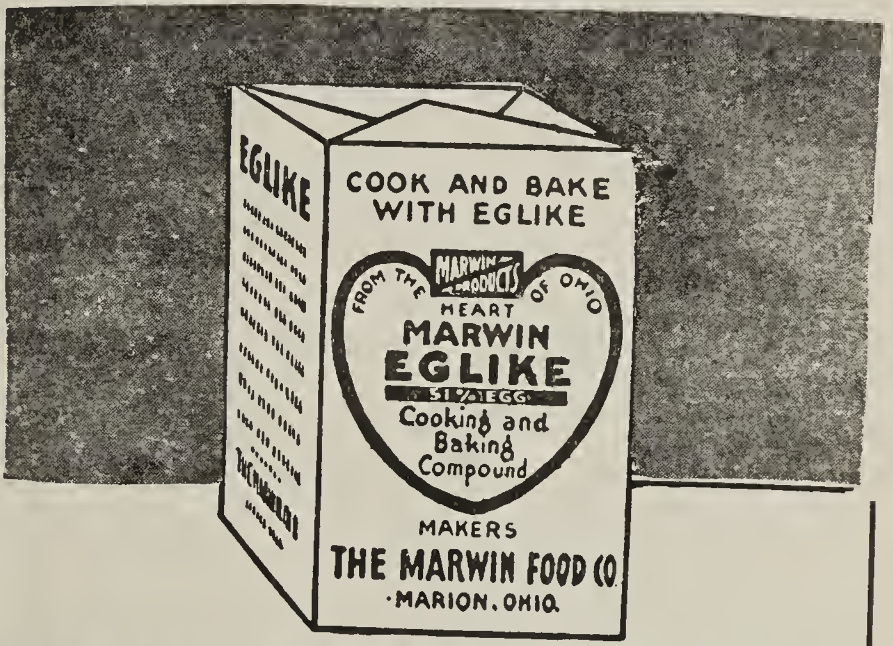

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No better Pumpkin Pie can be made than that made with Eglike.

Eglike gives a firmness and a flavor to the pie that is mighty pleasing.

Increase your sales by selling both Eglike and Canned Pumpkin at this seasonable time.

**THE MARWIN FOOD CO., Marion, Ohio**

## STANDARDS REPORT

(Continued from page 24)

14. *Roquefort Cheese* is the cheese made by the Roquefort process, from unheated, unpressed curd obtained by the action of rennet on the whole milk of sheep, with or without the addition of a small proportion of the milk of goats. The curd is inoculated with a special mould (*Penicillium Roqueforti*), and ripens with the growth of the mould. The fully ripened cheese is friable and has a mottled or marbled appearance in section.

15. *Gorgonzola Cheese* is the cheese made by the Gorgonzola process, from curd obtained by the action of rennet on whole milk. The cheese, ripened in a cool, moist atmosphere by the development of a blue-green mould, has a mottled or marbled appearance in section.

### *Whole Milk or Partly Skimmed Milk Cheeses*

16. *Edam Cheese* is the cheese made by the Edam process, from heated and pressed curd obtained by the action of rennet on whole milk, or on partly skimmed milk. It is commonly made in spherical form and coated with a suitable oil and a harmless red coloring matter.

17. *Emmenthaler Cheese, Swiss Cheese*, is the cheese made by the Emmenthaler process, from heated and pressed curd obtained by the action of rennet on whole milk or on partly skimmed milk, and is ripened by special gas-producing bacteria, causing characteristic "eyes" or holes. The cheese is also known in the United States as "Schweizer." It contains, in the water-free substance, not less than forty-five per cent (45%) of milk fat.

18. *Camembert Cheese* is the cheese made by the Camembert process, from unheated, unpressed curd obtained by the action of rennet on whole milk or on slightly skimmed milk, and is ripened by the growth of a special mould (*Penicillium Camemberti*) on the outer surface. It contains, in the water-free substance, not less than forty-five per cent (45%) of milk fat.

19. *Brie Cheese* is the cheese made by the Brie process, from unheated, unpressed curd obtained by the action of rennet on whole milk, on milk with added cream, or on slightly skimmed milk, and is ripened by the growth of a special mould on the outer surface.

20. *Parmesan Cheese* is the cheese made by the Parmesan process, from heated and hard-pressed curd obtained by the action of rennet on partly skimmed milk. The cheese, during the long ripening process, is coated with a suitable oil.

### *Skimmed Milk Cheeses*

21. *Cottage Cheese, Schmierkase*, is the unripened cheese made from heated (or scalded) curd obtained by the action of lactic fermentation or lactic acid or rennet, or any combination of these agents, on skimmed milk, with or without the addition of buttermilk. The drained curd is sometimes mixed with cream, salted, and sometimes otherwise seasoned.

### *Whey Cheeses*

22. *Whey Cheese* (so-called) is produced by various processes from the constituents of whey. There are a number of varieties, each of which bears a distinctive name, according to the nature of the process by which it has been produced, as, for example, "Ricotta," "Zieger," "Primost," "Mysost."

## Butter Schedule

The Committee has given much time to a consideration of a definition and standard for butter. Two public hearings have been held, viz., on June 19, 1918, at St. Paul, Minnesota, and on June 24 at Washington, D. C. Announcements of these hearings were given the widest publicity through the press and by circulars mailed to the individual butter manufacturers throughout the United States. Individuals, manufacturing concerns and associations were given every opportunity to be heard. Their opinions and recommendations have been given most serious consideration.

The butter standards in force in this country and in foreign countries have been compiled and carefully analyzed. Table I shows the standards in force in the United States of America. Table II shows those in force in the foreign countries indicated. This information may not in every case be up to date, but it is the best information available.

### *Acts of Congress Relating to Butter*

There are several acts of Congress relating to butter, as follows:

### *Definition of Butter*

"That for the purpose of this act, the word butter shall be understood to mean the food product usually known as butter and which is made exclusively from milk or cream or both, with or without common salt, and with or without additional coloring matter." (24 Stat. L., 209, approved August 2, 1886.)

### *Definition of Adulterated Butter*

"Adulterated butter is hereby defined to mean a grade of butter produced by mixing, reworking, rechurning in milk or cream, refining, or in any way producing a uniform, purified, or improved product from different lots or parcels of melted or unmelted butter or butter fat, in which any acid, alkali, chemical or any substance whatever is introduced or used for the purpose or with the effect of deodorizing or removing therefrom rancidity, or any butter or butter fat with which there is mixed any substance foreign to butter as herein defined, with intent or effect to cheapining in cost the product, or any butter in the manufacture or manipulation of which any process or material is used with intent or effect of causing the absorption of abnormal quantities of water, milk or cream." (32 Stat., 196, approved May 9, 1902.)

### *Definition of Renovated Butter*

"Process butter or renovated butter is hereby defined to mean butter which has been subjected to any process by which it is melted, clarified or refined and made to resemble genuine butter, always excepting 'adulterated butter' as defined by this act." (32 Stat., 196, approved May 9, 1902.)

### *Standard of Butter for the District of Columbia*

"Butter is adulterated if it contains more than twelve per centum of water, more than five per centum of salt, and less than eighty-three per centum of fat." (30 Stat., 246, approved February 17, 1898.)

### *The Definition and Standard for Butter Approved by the U. S. Secretary of Agriculture in 1906*

By the Act of Congress approved March 3, 1903, authority was given to the Secretary of Agriculture to collaborate with the Association of Official Agricultural Chemists and the Interstate Food Commission "to establish standards of purity for food products and to determine what are regarded as adulterations therein." As a result of such collaboration, the Secretary of Agriculture on June 26, 1906, announced the following definition and standard for butter:

"Butter is the clean, non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than eighty-two and five-tenths (82.5) per cent of milk fat." By acts of Congress approved August 2, 1886, and May 9, 1902, butter may also contain added coloring matter.

This definition and standard was approved and affirmed by the Joint Committee on Definitions and Standards at its last meeting September 5 and 6, 1919.

The Joint Committee on Definitions and Standards has not reached a conclusion with respect to definitions and standards for the other schedules which it has under consideration. It is not considered necessary to make an apology for not being able to make a final report to you on the other subjects which have been under consideration. The multiplicity of duties of the members of the Committee occasioned by the war are well known to you and do not need any explanation. The hearty co-operation of each and every member of this Association is greatly desired by the members of this Committee and you are earnestly requested to assist the Committee in every appropriate manner in securing the facts and arriving at a proper and just conclusion at an early date concerning definitions and standards for the various subjects under consideration by the Committee.

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The bureau of crop estimates figures that the pack of tomatoes in the country as a whole will this year be about one-half that of last year, 8,151,000 cases, as compared with 15,882,372.

## Selling Prices of Canadian Wheat

The Wheat Board of Canada has fixed the following prices for the sale of wheat to flour mills: $2.30 per bushel, including $0.05 per bushel carrying charges, basis on No. 1 Northern in store public terminal elevators, Fort William and Port Arthur; $2.33 per bushel, including $0.05 per bushel carrying charges, basis No. 1 Spring or No. 1 White Winter wheat, in store Montreal; $2.31 per bushel, including $0.05 per bushel carrying charges, basis No. 1 mixed Ontario and Quebec wheat in store Montreal; $2.27 per bushel, including $0.05 per bushel carrying charges, basis No. 1 Goose wheat in store Montreal; $2.25½ per bushel, including $0.05 per bushel carrying charges, basis No. 1 British Columbia wheat, in store Canadian Government Elevator, Vancouver.

## Venezuela Prefers Canned Fruits in Glass Containers

Venezuela normally imports a large amount of canned goods from Spain, France and Italy, owing perhaps to the tasty arrangement in glass containers of the product from those countries, according to a report from the American vice consul at Maracaibo, Venezuela. Recently the United States has been exporting large amounts of canned goods and if the goods are put up attractively a profitable market may be developed.

"The importers prefer to have fruit, especially jams, preserves, and jellies, put up in glass jars holding about 1 pint or more. They should come packed preferably 24 to each package." A list of the importers of canned goods may be obtained from the Bureau of Markets by asking for report Venezuela 120669.

## Complain of Canned Goods

According to the manager of an important European import and export house at Penang, Straits Settlements, doing business with American houses in canned vegetables, fruits, meats, fish, etc., goods are arriving in bad condition and are sometimes unsalable. He attributes this partly to the fact that, due to war restrictions, a poor quality of tin is being used.

He pointed out that this is harmful to the good reputation of American products in this market and to the firms importing them.

---

Tests in the recovery of cottage cheese from buttermilk confirm the centrifugal method that is now in use in some of the Ohio creameries. The tests have been made at the Ohio Experiment Station. It is pointed out by specialists that heretofore large quantities of buttermilk have been poured into sewers or fed to livestock, whereas much of the material might have been used for human consumption since meats are so high in price, and also because cottage cheese forms a particularly nutritious article of diet.

Under the present system of recovery the buttermilk is placed in a huge bowl that is driven at a high rate of speed; the curd in the buttermilk is driven out at the top of the bowl and drawn off in a manner similar to that by which cream is separated from milk by a cream separator.

It has been found that the installation of a cheese machine is cheap enough to make it possible for many small dairies to produce cottage cheese on a commercial scale.

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A little water, a little flour, and the batter is ready for the griddle. Every ingredient — even milk — is ready mixed in the red package.

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## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of American Food Journal, published monthly at Chicago, Illinois, for October, 1919.

State of Illinois, }
County of Cook } ss.

Before me, a Notary in and for the State and county aforesaid personally appeared C. A. Patterson, who, having been duly sworn according to law, deposes and says that he is the owner of the American Food Journal and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—C. A. Patterson, 410 Cunard Bldg., Chicago.

Managing Editor—Wm. G. Davies, 410 Cunard Bldg., Chicago.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

C. A. Patterson, John E. McEwen, Harold F. White.

3. That the known bondholders, mortgagees, and other security holders other securities are: (If there are none, so state.) None.
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4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. C. A. PATTERSON.

Sworn to and subscribed before me this 16th day of October, 1919.

(Seal) D. J. HANSEN.

My commission expires December 10, 1919.

## Fleischman Loaf at Land Show

No woman, ever so ambitious she may be, would ever think of baking a loaf of bread 8x12 feet, but just such a loaf was offered to public view at the exhibit of the Fleischman Yeast Company at the Land Show, San Francisco. This is said to be the largest loaf of bread in the world.

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The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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## GOOD EGGS

(Continued from page 26)

from a New Jersey hennery to New York city by express, a nineteen-hour trip, and found them to show greater age than eggs five days in transit under refrigeration. Indeed, the only really fresh eggs in commercial quantities in our cities in the hot weather of July and August are those put into cold storage in March, April or May.

### Preventing Decay of Farm Eggs

"In passing, let me say that we have not yet succeeded in differentiating by any chemical, bacteriological or physical examination between cold storage and non-cold storage eggs. One can tell whether the egg is stale or fresh, but to pick out from a number of eggs, those which have been in cold storage is not now possible. The same general course of deterioration occurs in the farmer's cellar or the storekeeper's closet in cool weather, only at a much greater speed.

"In conclusion, let me urge that this association throw its influence and its efforts into the task of preventing the decay of the raw egg, venting the decay of the farm egg, because it is upon the general purpose farm with its flock of ranging hens that the people of this country must depend for the egg supply. That a noteworthy measure of success can and does attend such efforts is attested by the fact that in Kansas between 1916 and 1918, inclusive, rotten eggs coming to the shipper in August, which is the worst month of the year, decreased from 12 to 5 per cent. This was in response to some law, but more education. I have no similar figures for Illinois, but I am confident from general information that even a better showing, both a constructive law and an educational propaganda, Tennessee and Kentucky long discriminated against in Eastern markets, jumped during the war regime to a place ahead of states in the Mid-West where enforcement of the candling ruling was lax. It is up to all of us now to see that progressive increase in quality and decrease in waste shall follow the excellent accomplishments of the past few years. The country is ready for 'good egg' laws. I con-to adminster such laws."

## Texas Cottonseed Yield Per Ton

The Texas State Department of Agriculture, after exhaustive investigation, has prepared data showing the amount and value of the products to be obtained from a ton of cottonseed. The oil content of cottonseed grown in Texas has been low during the last few years, on account of the extended and severe drouth, but this year the oil content is high. It is found that a ton of cottonseed will yield products this year with a value of $86.35, as follows: 500 lbs. of oil, $48; 1,000 lbs. of meal, $33.50; 270 lbs. of hulls, $1.85; 100 lbs. of linters, $3; 130 pounds of waste.

*Look for Price's Tropikid on the label.*

**PRICE'S VANILLA**

Price's is the pure juice of the finest vanilla beans—aged in wood to give it a rich, mellow flavor. No substitute flavor nor artificial coloring in it!

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He SAW the plant—which he had visioned with the mind's eye—and rejoiced with boyish exuberance. What he saw is set down in a mighty meaty book. Cy said we could have some of them soon. Do you want a copy? Then please put in your bid. It's free.

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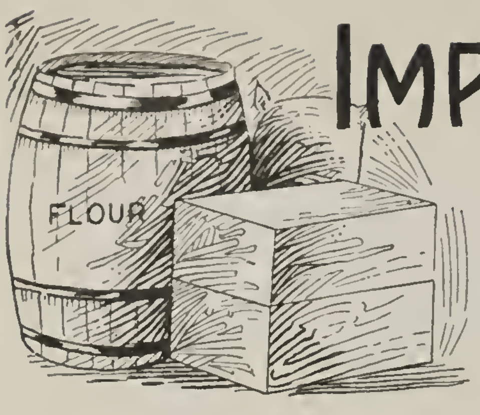
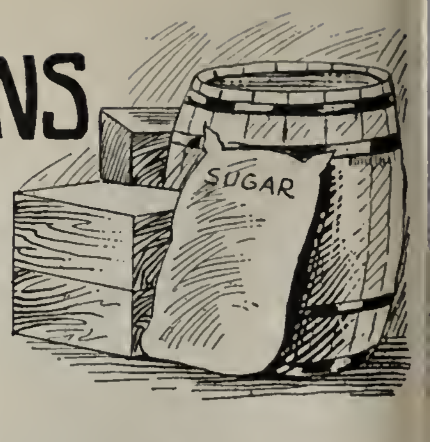


# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY



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**Fraternity of Operative Millers of America**

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**National Association of White Corn Millers**

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**Western Paper Box Manufacturers' Association**

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## Sweden Forms Sugar Import Monopoly

According to the British Board of Trade Journal for August 14, 1919, the Swedish government has established a monopoly for the importation of sugar into Sweden from August 1, 1919, to October 31, 1920. According to Sweden press reports the July stocks of sugar will meet the requirements of Sweden until the 1919 production comes on the market, and it is anticipated that this year's production of beet sugar will be sufficient to meet most of the requirements of that country.

## Commercial Eggs Classified

In order that there may be no confusion or misunderstanding with reference to the enforcement of the new law prohibiting the sale of eggs for and as "fresh eggs" that are not fresh eggs, as may appear upon proper test, James Foust, Director of the Bureau of Foods, Pennsylvania Department of Agriculture, issues the following statement:

There are four classes of eggs—

1. A "fresh egg" is one that is understood to have the following qualities: Its white is capable of whipping well; in cooking it can be satisfactorily poached or soft boiled; it has not absorbed foreign disagreeable odors; its embryo shall not have developed appreciably. The yolk should be fairly stiff and well rounded and the white should not be watery, and the chalaza shall be well defined.

2. Cold storage eggs must be sold in accordance with the Cold Storage Law and must be represented and labeled "cold storage eggs."

3. Eggs kept for a period of time by the water glass, lime or other methods that cannot be classified as "fresh eggs" but are edible, wholesome and suitable for all food purposes except such as require "fresh eggs."

4. Eggs that are decayed, partly decayed, or decomposed and unfit for food purposes, have a commercial value for tanning leather such as is used in the manufacture of gloves. Rotten eggs must be promptly denatured with kerosene oil, and when opened must be placed in a container painted a bright red color.

SOMETHING NEW

*Samples Gratis*

GRANULATED BORIC ACID

Will dissolve more readily than any form hitherto introduced
- - When ordering, specify - -

20 Mule Team Granulated Boric Acid
U. S. P.

Pacific Coast Borax Company
New York Chicago Oakland

"A Good Reputation is More Valuable Than Money"—

The name "Purity" is your guarantee of superior flavor and quality.

We have been making oleomargarine for 36 years. The reputation built up through those years is one of our most valuable assets. We wouldn't dare risk it through carelessness or inferior product.

Whenever you see the name "Purity" Margarine on the carton you are assured of the utmost in value and satisfaction.

THE CAPITAL CITY PRODUCTS CO., Columbus, Ohio
*Also Makers of Nut Margarine*

**The Pure Spread for daily Bread**

Chicago's Most Modern Fireproof Hotel

Over 1000 rooms. Each room has a bath and running ice water, is completely and luxuriously furnished. Every floor has its own housekeeper—every known facility for your personal comfort.

*Nothing less than your entire satisfaction will satisfy us.*

The Home of the Famous TERRACE GARDEN
Chicago's Most Beautiful Restaurant
Noted for its perfect cuisine
Entertainment unexcelled
America's Show Place

Morrison Hotel
Madison at Clark St
*Personal Management*
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Your Prospective Customers are listed in our Catalog of 99% guaranteed Mailing Lists. It also contains vital suggestions how to advertise and sell profitably by mail. Counts and prices given on 9000 different national Lists, covering all classes; for instance, Farmers, Noodle Mfrs., Hardware Dlrs., Zinc Mines, etc. *This valuable reference book free.* Write for it.

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You can produce sales or inquiries with personal letters. Many concerns all over U. S. are profitably using Sales Letters we write. Send for *free* instructive booklet, "*Value of Sales Letters.*"

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**BON BON**
***The Original Alum Baking Powder***

Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.

**J. C. Grant Chemical Co.**
**East St. Louis, Ill.**

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**Sales Department**
**327 So. LaSalle Street,**

**Chicago, Ill.**

**Manufacturers of High Grade**
**DISTILLED VINEGAR**

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*The New Style Gelatine for*
**DESSERTS and SALADS**
*All Flavors* At Your Grocer's
**TWO PACKAGES FOR 25 CENTS**

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***DEPARTMENTS: Food, Commercial, Medical, Milling and Baking. Expert Staff of Consultants. Court and Medico-Legal Work***

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RYZON

Batter Keeps!

To get the utmost out of ingredients and to use them in more than ordinary ways—that is where domestic science experts and students of modern cookery excel.

That is why they have been so hearty in their endorsement of Ryzon, The Perfect Baking Powder. It is not only dependable and scientifically accurate, but it proves itself a valuable ally in the search for new and time-saving methods with which to simplify cooking.

*Ryzon is 40c for a full 16 ounce pound—also 25c and 15c packages. The new Ryzon Baking Book (original price $1.00), containing 250 practical recipes, will be mailed, postpaid upon receipt of 30c in stamps or coin, except in Canada.*

For instance, batter made with Ryzon Baking Powder may be put into ice box or a cool place for a day or overnight without harm. The biscuits or cake will be just as good and rise just as well as if baked immediately.

The following biscuits, mixed in the morning, baked in the afternoon and served crisp and hot are delicious and unusual for afternoon tea.

**Ryzon Cheese Drop Biscuit**

1 level cupful (¼ pound) flour.
¼ teaspoonful salt.
½ cupful (1 gill) water.
3 level teaspoonfuls Ryzon.
1 level tablespoonful (½ ounce) butter or fat.
8 level tablespoonfuls (½ cup) grated cheese.

Mix like drop baking powder biscuit. Bake twelve minutes in hot oven. Sufficient for twelve biscuits.

GENERAL CHEMICAL CO.
FOOD DEPARTMENT
NEW YORK

Wheat Bubbles

And How We Create Them

Puffed Wheat is whole wheat, steam exploded.

The farmer sends to our hoppers the finest grains he grows.

We seal those grains in guns, then apply an hour of fearful heat. When all the wheat moisture is turned to steam, we shoot the guns and the grains explode.

That is Prof. Anderson's process. The purpose is to blast every food cell so digestion is easy and complete.

But the result is also bubble grains, thin, flaky, toasted, with a nutty taste.

The three Puffed Grains are in this way made the most enticing cereal foods in existence.

Shot from Guns

Puffed to 8 Times Normal Size

These airy, flimsy Puffed Grains are 8 times normal size.

They taste like food confections. But they are grain foods—two are whole grains—fitted for digestion as grains never were before.

Serve with cream and sugar. Float in your bowls of milk. Mix in every fruit dish. Crisp and lightly butter for children to eat dry.

There is no other grain food which children love so well.

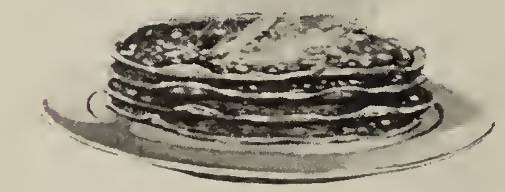
Puffed Wheat—Puffed Rice—Corn Puffs

Also Puffed Rice Pancake Flour

*A New Puffed Product*

ALSO PANCAKES NOW

A Puffed Rice Pancake Flour Mixture



Now there is also a Puffed Rice Pancake Flour mixture, containing Puffed Rice ground. It makes fluffy pancakes with a nut-like taste—such pancakes as you never tasted. Try it. Just add milk or water. The flour is self-raising.

The Quaker Oats Company

SOLE MAKERS

3233

THE AMERICAN FOOD JOURNAL

Vol. XIV NOVEMBER, 1918 No. 11

Wm. G. Davies, Editor

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THE PATTERSON PUBLISHING CO.

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## A New Discovery

IN the December issue of THE AMERICAN FOOD JOURNAL will appear a story about a new process for preserving eggs, a process which seems to offer to every farmer and every egg handler a simple method of keeping his product for a long period—and best of all, of keeping it in just the same condition—with all of the food value—of the freshly laid egg.

The story will be told in full by the man who discovered the process as the result of years of patient work. Don't fail to get your copy of the magazine with this story. It is something entirely new and something that you will want to know about.

* * * *

The December issue will also contain a story about a man who is little known to the public, but is well-known to the manufacturers of food products. This man has traveled the length and breadth of the country, telling manufacturers how to keep the little germs of disease out of their product. He has done more than that. He has traveled in foreign countries and there, too, he has spread the gospel of clean and wholesome food. He is a scientist and, therefore, not a publicist. That is why his great work which has benefited humanity to an extent that is almost beyond measure is so little known to the general public. The AMERICAN FOOD JOURNAL will tell you all about him in the next issue.

* * * *

The December issue will contain an article with illustrations on how a big city supplies food to its people. We are just coming to a realization of the municipalities' responsibilities in the matter of food supply and food sanitation and it behooves us all to know more about what our municipal governments are doing along this line.

* * * *

We have received many letters telling us of the steady improvement of the AMERICAN FOOD JOURNAL, and this is further evidenced by the growing subscription list. This magazine aims to be educative and we believe that the people of the country are anxious to know more about foods. Read the AMERICAN FOOD JOURNAL if you want to have the latest ideas and facts concerning the chemistry and the economics of food.

* * * *

And now the farmers are organizing to tell both labor and capital what they must do. They have the edge on all of the other organizations because while the capitalist can't run his business without labor and the labor can't run a business without capital, the farmer can live on his own last year's crops and give them all the laugh.

* * * *

Some one sent to this office recently to find out how many pumpkin pies were made in the City of Chicago last year. We are much more interested in knowing how many "pumpkin" pies were made out of squash or sweet potatoes.

One Costs You

Five Times the Other

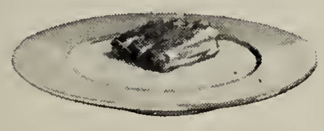
Quaker Oats costs one cent per large dish.

A cake of Hamburger Steak costs five times that. So does a small serving of any meat or fish.

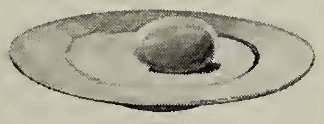
In Quaker Oats you get the finest grade of the greatest food that grows. It is noted as a vim-producer and a food for growth.

It is almost a complete food—nearly the ideal food. A food which every modern mother wants her child to get.

**35 Cents Buys 6221 Calories**


**4 Oz. Meat**
will cost 8 cents, or 8 times the dish of oats.

**White Fish**
or mackerel costs some 8 cents per serving — 8 times the dish of oats.


**One Egg**
costs 4 cents, or 4 times the Quaker Oats.

The 35-cent package of Quaker Oats contains 6221 calories. That's the energy unit used to measure food values.

Compare that cost with other necessary foods. These are the figures at this writing:

| Cost of 6221 Calories | |
|---|---|
| In Quaker Oats | 35c |
| In Average Meats | $2.89 |
| In Average Fish | 3.12 |
| In Hen's Eggs | 3.75 |
| In Vegetables, | 68c to 4.70 |

Meats, eggs, fish and fowl, on this basis, cost nine times Quaker Oats for the same calory value.

Each large package served in place of meat saves about $2.80.

Save that in your breakfasts. Everybody should eat oats once daily. Then the saving will help pay for costlier foods at dinner.

Quaker Oats

*With That Extra Flavor*

15c and 35c per package

*Except in the Far West and South*

*Packed in sealed Round Packages with Removable Cover*

3211

**Write for These Reports**

A great food control laboratory has found many important reasons why you should ask your grocer and butcher to use wooden dishes for packaging bulk foods

∴ *We will send you copies of these reports* ∴

**The Oval Wood Dish Company**

**Eastern Office**
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**37 South Wabash Avenue**
**Chicago, Ill.**

# SOME FACTS and OPINIONS

Editorials About Questions Now in the Foreground

## The Women and Food

HAVING practically won their fight for suffrage, the women who have fought so nobly and at times so strenuously for "votes for women," will now turn their attention to the study of those things a knowledge of which are necessary if they are to properly exercise the franchise which they will shortly be given, according to an announcement made by Mrs. Carry Chapman Catt in a speech delivered at St. Louis recently.

This does not mean that our feminine population, as a whole, is not already as capable of voting intelligently as our masculine contingent. In fact when we consider how many men have for years and generations cast their vote by the "good fellowship" and "good sport" plan and how many others have permitted the ward bosses to cast their votes for them, it seems hardly possible that the women are less capable in this particular than the men. It does mean, however,—if the plan is carried out—that the women are going to systematically train themselves to do their own thinking before voting, and in this they are to be congratulated.

It is seldom that citizens get an opportunity to cast a vote directly on a food matter, never-the-less, as food matters are among the most important before the people, it is a plain duty for all to inform themselves regarding food values, food laws and regulations and the place in the economic world which each food producer and distributor occupies.

Even before the suffrage movement seemed as near to success as it does now the voice of the woman was listened to on food. If now, as they are about to get the vote, they make a thorough study of the kinds of foods offered; the conditions under which they are made and distributed; sanitation and hygiene, and if they will back their opinions with their votes they can become the dominating force in seeing that the world is properly fed at proper prices.

Every food manufacturer recognizes the power of the women to make or break his business and every food manufacturer advertises to the women. With the enlarged power that is about to be given them the feminine voice will have the opportunity to be heard directly as it has never been heard before and food conditions ought to be bettered in direct ratio to the way in which they recognize this power and exercise it.

---

## Federalizing Food Control

EXCEPT for the fact that some of our daily newspapers have appeared with editorials favoring the passage of the Calder bill which seeks to take from the states the power of control over foods and drugs that pass in interstate commerce, and some of the medical journals have opposed its passage because of the greater power for harm which it will give to certain medicinal preparations of unsavory reputation, there seems to have been but little interest stirred up and little publicity given to this proposed measure, although it is one of the most important measures that has come before Congress in many years.

In spite of the seeming lack of interest, however, there is a strong force behind this bill and it now looks as though it is going to be passed. The force is supplied by the manufacturers and distributors of food products who have long suffered under the diversified, and, in many cases, contradictory laws of the various states governing food production and distribution.

It is right that the manufacturers and distributors of food products should have some relief from the intolerable conditions which they have bucked against for years and which have cost them and the public large sums of money and have actually worked to keep down production to some extent, and there could be no more opportune time for the introduction of such legislation than the present when the world is looking to this country for much of its food supply and when the citizens of our own domain are crying out against the high cost of living. But it is only right to take cognizance of the fact that the Federal Food and Drugs Act, which will be the only law under which almost all of our food will be produced and distributed if the Calder bill is passed, is not as strong in many respects as it should be if the food industry is to be kept on as high a plane as it has been placed by the various state laws.

This is not in itself sufficient reason for defeating the Calder bill, but it is a reason, and a strong one, why immediate steps should be taken to correct the Federal act and give the Federal authorities who are charged with its enforcement sufficient powers to properly control food affairs.

The Federal Food and Drugs Act is more of a "Thou Shalt Not" law than a "Thou Shalt" law, and for a number of years the Federal agents have had to call upon state agents to stop certain frauds and injustices which were being perpetrated upon the public, because they had not the full authority to go as far as the state agents were able to do.

One of the great weaknesses of the Federal laws also lies in the fact that it does not give Federal agents as much power as they should have to control the fake medicine situation. The fact that this situation is not as bad as it might be is due to the state authorities in a measure and to the activities of the Vigilance Committee of the Associated Advertising Clubs of the World. The latter organization has induced many newspapers to refuse advertising of these fake medicine concerns and they have driven many of the nostrums from the market by enforcing the truth in advertising laws.

This duty, however, should not be left to an outside force, but should be assumed fully by our Federal authorities in the event of our laws being Federalized, and it is not premature to say that steps should be taken immediately to correct our Food and Drugs Act so that the passage of the Calder bill will not make it easier for the indecent medicine venders to prey upon the weaker members of our race.

## Food Officials' Pay

At the last convention of the American Association of dairy, food and drug officials there was some talk among the delegates about the salaries which are paid the men in this branch of governmental work and there were many who expressed the opinion that the same amount of skill and energy is being paid for at much higher rates by private concerns than by the government.

The fact that several men prominent in this work have recently resigned to attach themselves to private organizations or companies of food manufacturers or distributors seems to support this theory. Dr. Alsberg, too, spoke of the difficulty of getting trained technical men to take up this work and these facts seem to support the theory that our public servants who are charged with the very important duties of guarding the public's stomach against adulterated and improper food, are but poorly paid.

It is safe to say that these government employes will never form a union and affiliate themselves with the American Federation of Labor as did the actors. It is impossible to imagine our dignified food control officials marching down the streets bearing banners demanding more pay or a strike.

The answer to the low pay and rapidly increasing cost of living will be evidenced simply by the dwindling of the number of trained men in food control positions and a corresponding increase in the dangers to the public in deceptively labeled and adulterated foods.

There can be no good reason advanced why the trained men in the government's employ should not receive as much as their services would bring if they were in the employ of some corporation or food producers organization.

## Food Handlers

While we have very few effective regulations in force in our municipalities concerning food handlers in the stores and restaurants, the fact that we need such laws and regulations is beginning to come to the attention of various officials.

The physicians do not agree as to just what the "flu" is, but practically all agree that there would be much less of this disease prevalent if there were more stringent measures placed in force in the various cities regarding food handling. Waiters and storekeepers make up a fine little body of disease germ spreaders if they are not made to exercise more care in the way in which they handle the food and eating utensils when serving the public.

Everybody must have food, therefore, everybody should take more interest in the way in which our food supplies are produced and distributed. More knowledge about food matters is one of the crying needs of the day.

Some manufacturers seem to be quite peeved because the government insists that a coal tar sweetener is not food and should not be substituted for sugar, a good food, in things that we drink and eat. We wonder if these same manufacturers would not kick very strenuously if they paid wool prices for a suit of clothes only to learn later that there was no wool in the cloth of which the clothes were made.

When you buy food for its caloric value, don't forget that calories are merely heat measurement units. Pure fat will give an immense number of calorics, but it is not a balanced ration.

# How Chemists Have Succeeded In Duplicating Nature's Products

By J. J. WILLAMAN

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*In this article a chemist tells how the development of the science of chemistry has resulted in the production of products that look, taste, smell and act like natural products but which are in reality the product of factories.*

*Chemists are not men who merely tear things apart to see what they are made of. The new science of synthetic chemistry is a building process by which the scientist first learns nature's secrets and then proceeds to imitate nature's products.*

THERE is a prevailing idea among those who are unfamiliar with the profession of chemistry that the main object in life of the chemist is to tear things apart in order to see what they are made of, and to scrutinize substances for adulterations and impurities. It is thought that new facts in chemistry are sought on the one hand by those who can utilize them in foisting some new substitute or sham article or "just as good" commodity on the purchasing public, and on the other hand by those who are hired by the state or by the Federal Government to discover such frauds, to prosecute the offenders, and to warn the public. There is, however, a phase of chemistry that is at least as important as, and far more interesting than the above. And as this phase of chemistry is developing by leaps and bounds at the present time, and as it affects practically every individual in one way or another, it is thought desirable to lay before the readers a brief exposition of this particular phase of the work of the chemist.

### Synthetic Products

When the housewife wants to impart to her pudding the flavor of vanilla, she asks for a bottle of vanilla at the store. If she be an elderly housewife, she unconsciously assumes without looking at the bottle, that she is getting an extract of the vanilla bean, for her mother used to buy the beans and make her own extract, and of course that is the way the factory does it. If she be a younger housewife, however, she never stops to think what her purchase is, where it comes from, how it is made; she knows it will make vanilla pudding, so what's the difference what or where or how? Like as not, the bottle says on the label, as is demanded by the Pure Food Laws, "Vanilla flavor; contains vanillin." Now, "vanilla flavor" is entirely different from "vanilla extract" and therein lies the story.

Some years ago a chemist, after long and arduous labor, succeeded in establishing the identity of the delightful flavoring material of the vanilla pod. He found out its exact formula; he discovered its exact inner constitution; and then he proceeded to find a way of producing the substance artificially. He called this active constituent of the vanilla bean *"vanillin."* A firm began manufacturing it on a large scale; they made a solution of it, colored the solution with caramel, bottled it, sold it for vanilla extract, and no one knew the difference. And why should they? The artificial compound was absolutely identical with the active compound of the bean; it was not a substitute, but the real thing, produced synthetically.

Perhaps another brand of vanilla in your kitchen may say on the label that it contains vanillin and coumarin. Now coumarin, which is the compound responsible for the odor of new mown hay, in concentrated solutions has a flavor which suggests vanilla, although it is not found in the vanilla bean. Hence, coumarin, when used to imitate the vanilla flavor, is a substitute pure and simple; it is chemical camouflage.

### Imitating Nature

Although it is no slight trick to find artificial compounds which will simulate the products of nature, we shall consider here only those cases in which the chemist has actually achieved the duplication of the natural product.

There are in chemistry just two great processes—analysis and synthesis. Analysis consists in the chemical examination and testing of a substance to discover its nature, its constitution, and its identity; it is always a tearing down process. Synthesis, on the contrary, is a building up process. It takes two or more known substances and combines them to make a different known substance. Perhaps a half dozen stages in the building up process are passed through, but always the final objective is kept in sight.

It is obvious that in setting about to duplicate one of nature's substances, on a large scale, three separate phases of the works are involved. First, the analysis of the compound to discover its constitution; second, the synthesis of that compound in the laboratory; and third, the synthesis of the compound on a factory scale. Many natural substances can be reproduced in the laboratory, but cannot be produced on a commercial scale except at a prohibitive cost.

### A Long Task

Perhaps one of the most historic achievements along this line was the synthesis of indigo. It took Bayer fifteen years to discover the process of making artificial indigo, and twenty more years to put the process on a factory basis. As a result, we now have a dye which is more constant in composition and quality than the natural product; and the great fields of indigo in India and Japan are almost a thing of the past.

Another dye plant that had a similar fate is madder. This was the source of the beautiful alizarine, until the constitution of the dye and a method of preparing it from a coal-tar product were discovered, when the synthetic substance entirely replaced the natural.

Other examples of the discovery of the secrets of nature's colors might be sighted, but the two above are the most important. By far the greater majority of our dyes are purely artificial; they are never found in nature, at least to our knowledge. The rivalry between the laboratories of man and those of nature has resulted in the former far outstripping the latter in the production of tints useful to man in the coloring of fabrics, paper, leather, hair, and other materials.

Probably the most romantic field in chemistry is that of the floral perfumes. Milady must have her scents, and though she use but a drop a day, the aggregate is considerable; the demand on the odorous flowers of nature is very heavy. It requires many hundreds of pounds of flowers to yield a pound of concentrated essence; hence even the ten billion pounds of flowers of all kinds, which Duncan tells us are picked annually by the people of Grasse, France, cannot possibly supply the perfume market of the world.

### Perfumes Start

Time was when the gentleman wore the perfume; but in those days the chemists were busy trying to make gold out of lead, and it never entered their heads that they could court favor of their ladies by inducing them to use the ravishing extracts of flowers, and then proceed to make those extracts out of clay, as it were, in their test tubes and retorts. That is exactly what the chemist is doing now, however; he has duplicated a great many of our most prized floral odors; he has produced them at so low a cost that everyone, down to the most humble of all miladies, can now scent at least her kerchief; he has produced them so abundantly that hardly a cake of soap of any kind now appears on the market unperfumed; and he has carried his art to such heights of perfection that the operator of a movie parlor can now tint the subconsciousness of his patrons by breathing into the air of the hall a trace of this kind of scent for a murder scene, of that scent for a love episode, and of something else for a country party, and thus, with music, exploit the great triumvirate of our sense organs, the eyes, the ears, and the nose.

The odorous material from a given flower is seldom if ever a single substance; usually it is a complex mixture of many, perhaps half a hundred, different substances. To separate these components, to analyze each one to determine its chemical constitution, and then to discover the method of synthesizing it, is indeed a herculean task. The successful attempts have been hence relatively few in number, and have been the product not of one mind, but of the joint efforts of many minds, working for many years, in several laboratories, often in several different countries.

For example, the essence of jasmine has been found to have the following composition: benzyl acetate, 65.0%; linalool, 15.5%; linalyl acetate, 7.5%; benzyl alcohol, 6.0%; jasmone, 3.0%; indol, 2.5%; methyl anthranilate, 0.5%; and traces of geraniol and para-cresol. With this formula firmly established, the manufacturing perfumer has now only to assemble the pure constituents and blend them in the proper proportion. And in assembling them, he cannot call upon the chemist for all of them; he must still go to nature for some. For instance, the benzyl alcohol and acetate and the cresol can be obtained most easily from coal-tar products; the linalool and linalyl acetate cannot be readily synthesized, so are obtained from the Mexican linaloe plant and from a certain kind of South American rosewood. And the traces of constituents may not be ignored any more than the oboe or the flutes may be left out of a symphony orchestra. While indol is one of the causes of the revolting odor of human feces, the presence or absence of the trace of it in the above formula makes or breaks the jasmine scent.

### The Artist Enters

When it comes to building up new and delightful olfactory sensations which do not exist even in nature, the chemist gathers up his science and steps aside, making way for the artist. For the perfume artist, with his highly trained and sensitive nose, is the one who actually combines the available pure oils and produces the multitude of different perfumes which are so gaily vialled and bottled and displayed in our shops. The perfume artist has a new world at his feet; by his ecstatic creations he can transport us into realms of delight undreamed of. As a recent writer says, "Just as the chemist has found the delightful fragrance of new mown hay to be due to the crystalline lactone coumarin, so in time he will discover and synthesize the refreshing odor of the sea-borne breeze, the exhilarating fragrance abounding within the forest after a warm rain, and the many charming odors which prevail at the various seasons in the fields."

Thanks to the synthesizing chemist, we no longer have to gather the sputum of the whale from the surface of the seas for our ambergris; and we no longer have to obtain oil of bitter almonds from natural sources, but simply manufacture benzaldehyde.

A less romantic, but eminently useful field of activity of the manufacturing chemist, is that of making hard fat out of vegetable oils. There is an enormous amount of cottonseed, peanut, corn, and soy bean oil available for use as human food and for soap manufacture, if its physical condition as a soft oil did not limit or even preclude its adaptability for these purposes. Human beings, Americans, at least, are not used to cooking with oils; they demand fats. And an oil makes a soap that is too soft for most purposes. Now, chemists found that the main constituent of lard, tallow, and other body fats of animals is stearin, and the main constituent in the vegetable oils is olein. They further found that the difference between stearin and olein is six atoms of hydrogen. That is, the molecule of stearin is represented by the formula $C_{57}H_{110}O_6$; the molecule of olein by $C_{57}H_{104}O_6$ ( the C, H, and O symbolizing carbon, hydrogen, and oxygen respectively). They then conceived the idea of causing six atoms of hydrogen to combine with the olein to form stearin. And after many years of vicissitude this process is now an established commercial fact. It is called hydrogenation. By means of it vegetable oils are converted into beautiful solid, white fat, which is finding favor with American housewives as lard compound and lard substitute, and which is sold under many copyrighted names. Also, the soap makers use great quantities of these "fats made to order." The process can be carried to any degree of completion, producing fats of any desired consistency.

### Nature in a Factory

We could go on and discuss what the synthesizing chemist has done in the duplication of natural medicines and drugs, of rubber and other gums, and of many other substances required by this complex civilization of ours. The idea behind all of them, however, is simply this: to produce in the factory, within a small space and under economical conditions of labor and of raw materials the same substances which nature produces in out-of-the-way tropical jungles, or in a few rare odorous blossoms, or on acres of land that could more profitably be devoted to other kinds of crops. The further idea is to produce those materials in more standard grades, to maintain a supply free from the vagaries of the weather, and to deilver them to the consumer more cheaply and more abundantly than the natural product. And the still further idea is to improve on nature; to produce substances that she never did.

# Standardization of Baskets Saves Space and Trouble

*By F. P. DOWNING*

*Investigator in Marketing, U. S. Department of Agriculture*

*This is the second article on containers.*

*In this article Mr. Downing tells how baskets have been standardized, thus obviating the great trouble and confusion which has long been a source of worry to food shippers as well as to food control officials. The accompanying tables show how the number of sizes has been reduced in New York by standardization.*

It is a most difficult and oftentimes intricate problem to determine the type of shipping container best adapted to marketing the products of farm or orchard. No container of today has all the essential properties and none of the defects of an ideal package. The shipper, therefore, must study the problem.: Will the container carry safely to market? Is its cost excessive? Does it load well in wagon or car and are adequate means provided for ventilation? Is it attractive, adaptable to packing? Are means provided for preventing theft? Will the package "nest" when shipped empty? Can the package be conveniently carried home from market? Investigations, study, and experience alone will determine the type of package having the greatest number of these and other desirable attributes.

## The Grape Basket

The Climax basket, better known in many sections of the country as the grape basket, has come to be recognized as an ideal package for the marketing of Concord grapes. It has a solid bottom, veneered sides, is equipped either with a wooden or wire handle, and, when shipped any distance, is provided with a solid or ventilated cover. It differs from fruit or till baskets in that it is seldom enclosed within a shipping crate; and from hampers and round stave baskets in that it is not made in sizes exceeding sixteen quarts. It is chosen because of the protection it gives to the fruit, its suitability for certain markets, its market attractiveness, its cheapness, and its availability.

Climax baskets are not limited to the marketing of grapes. They have been successfully used in shipping tomatoes, peaches, cucumbers, cherries, mushrooms, huckleberries, limes, apples, cantaloupes, and many other fruits and vegetables, in some instances, almost to the exclusion of other containers of like size. This package is most popular in the northern and eastern states. It is rarely used in the South or Far West. Its use in Texas has been limited largely to the marketing of limes. In the State of Washington it is used to some extent in the Yakima region in marketing Concord grapes.

In Indiana and Illinois a 14-quart Climax basket was formerly extensively used in marketing cantaloupes. The 12-quart basket is rather small for this purpose, and, although still extensively used, it is gradually being supplanted in these states by the cantaloupe crate. A 13-quart Climax basket has been for years the popular type of shipping basket for tomatoes from Marietta, Ohio. The 12-quart basket is now used with equal success, although at first its use was strenuously opposed. In the vicinity of West Chester and Kennett Square, Pennsylvania, a 5⅓-quart Climax basket, known as the 4-pound mushroom basket, was used to the exclusion of practically all other packages. The 4-quart basket, holding three pounds of mushrooms, now supplants the old style container.

## Many Sizes Used

Grapes have been marketed for years in Climax baskets of a great number of sizes and shapes. The styles of Climax baskets shown in the bottom rows of the accompanying illustration are a few of the sizes formerly used for this purpose. The 1⅛-quart basket was used in the vicinity of Erie, Pennsylvania; the 1½-quart basket in central New York; the 2⅓-quart basket throughout the New York grape regions; the 3-quart basket in some sections of southern Michigan; the 4½, 5 and 5½-quart baskets in Michigan and New York; the 8-quart basket in New Jersey, and the 11 and 12-quart baskets in general use throughout the grape sections of Michigan, Pennsylvania and New York. In Iowa and Kansas the 5-quart basket was in extensive use.

No two manufacturers produced baskets identical in size or dimensions. A glance at Table 1, given below, will show a few of the sizes manufactured prior to 1916.

This table will readily convince the reader of the demoralizing effect of so many sizes, the inevitable result being confusion, misunderstanding, deception and fraud. The capacity of baskets varied with the locality, the desires of the individual grower, and from season to season. The basket manufacturer has often times been at the end of his resources. He dared not overstock, for in so doing he frequently found his baskets a drug on the market the following year. He was subjected to the expense and trouble of ordering a large number of expensive basket forms to satisfy either the greed or the mere whim of his customers. He could not lay in his basket stock in advance nor run his factory during the slack periods. Consequently, he was often unable to fill rush orders. For this reason growers suffered correspondingly large losses due to their inability to secure a sufficient number of baskets to market their crop. The grower who deceived his customers by shipping undersize baskets ostensibly for the purpose of gain often times found that the next season this worked to his disadvantage, as the trade either refused to deal with him or would not pay him prevailing market prices for his crop. It became evident that some remedy for this situation must be found.

## First Legislation

The passage of the net weight amendment to the Food and Drugs Act in 1913 was the first piece of federal legislation affecting the disclosure of the quantity of grapes in baskets. This act, in such cases, served to point out the wide variations in contents. It showed the weights of baskets of grapes to vary almost by pounds—three pounds, four pounds, five pounds, six pounds, seven pounds and eight pounds being the common weights of table grapes, and sixteen to twenty-pound baskets the prevailing sizes for wine grapes. Moreover, the law is difficult to enforce in the case of fresh fruits and vegetables, which, owing to their perishable nature, must move rapidly and which, in addition, are subject to considerable variations in weight owing to evaporation. Consequently, it did not afford the complete relief sought.

Some of the states most vitally interested then sought to regulate the manufacture and sale of grape baskets through the enactment of state laws. The first state to attempt to solve this problem was New York. In 1913 the New York legislature passed a law standardizing three types of grape baskets—the 4-pound, 8-pound, and 20-pound sizes—giving dimensions of each, but allowing other baskets to be used if marked to show the true net weight or measure (see Table 2). The 4-pound basket had an approximate capacity of 2⅓ quarts; the 8-pound basket five quarts; and the 20-pound basket 12 quarts. This law was instrumental in bringing about some uniformity in the state of New York. The attempt to standardize the basket on the basis of weight, however, did not work out successfully and this law was repealed in 1917.

In 1915 the Pennsylvania legislature passed what is known as the Pennsylvania Standard Container Act, standardizing berry boxes and grape baskets. (See Table 2.) This act provided for three sizes of Climax baskets, known as the Standard Pony, Standard Basket and Standard Jumbo basket. The dimensions and capacity of these baskets were not identical with the dimensions given in the New York law.

It then became apparent that the problem of standardizing grape baskets was one for the federal government to solve, and after many conferences between manufacturers, shippers, government officials and others, a bill was prepared and introduced into Congress. The committee having the Climax basket bill in charge combined the same with a bill standardizing berry boxes and baskets, also pending in Congress, and the result was the passage of the present United States Standard Container Act. The application of this law to berry boxes and other small fruit baskets has already been discussed. In addition, it provided for three sizes of Climax baskets for grapes and other fruits and vegetables, the 2-quart, 4-quart and 12-quart baskets. The dimensions of these baskets were incorporated in the law (see Table 2) and penalties for the shipment, or the manufacture or sale for shipment, in interstate commerce, of baskets of other dimensions or capacity, either empty or filled, were provided.

The United States Standard Container Act became operative Nov. 1, 1917, fourteen months after its passage. The enforcement of the provisions of this law is placed in the hands of the United States Bureau of Markets. Its passage and enforcement have resulted in the discontinuance of the manufacture or use of non-standard Climax baskets. The public, as a whole, knows little of the workings of of the results of this legislation, but growers, shippers, basket manufacturers and the produce trade fully realize the importance and benefits of the act and in many cases are desirous of seeing the fundamental principles underlying this piece of legislation extended to other types of shipping containers, such as the hamper, round stave basket, market baskets and, wherever feasible, to fruit and vegetable boxes and crates.

The standardization of fruit and vegetable containers should be along three lines—capacity, dimensions and strength, or ability to carry safely. The United States Standard Container Act does not prohibit the manufacture of frail, poorly constructed Climax baskets. The basket manufacturer is still at liberty to use poor material in his baskets and to undersell his competitor by cutting down on the thickness of veneer on sides, hoops or handles. At the last meeting of the National Basket and Fruit Package Manufacturers Association in Memphis, in March, 1919, the committee on Climax baskets, realizing this defect in the law, submitted the following report, which was unanimously adopted by the association:

**"Dimensions upon Climax baskets have heretofore been established by federal legislation, but the following specifications not covered by federal legislation are recommended:**

> **Two-quart backets: side stave to be 1/20-in. thick; hoops to be 1/20-in. thick, and top hoops to be of a minimum width of ½-in. and bottom hoops to be of a minimum width of ⅜-in.**
>
> **Four-quart baskets: side staves to be 1/18-in. thick; hoops to be 1/18-in. thick, top hoop to be a minimum of ⅝-in. wide and bottom hoop to be a minimum of ⅜-in. wide.**
>
> **Twelve-quart baskets: side staves to be 1/16-in. thick as a minimum; hoops to be minimum thickness of 1/16-in., top hoops to be minimum width of 1-in. and bottom hoops to be minimum width of 7/16-in.**
>
> **Handles to be of a minimum thickness of ⅛-in. and minimum width of 1⅛-in."**

These specifications will be of direct assistance to buyers of Climax baskets in the comparison of bids from different firms, whose variations in price may be due to difference in the construction of the baskets. If the basket specifications do not come up to the grades advocated by the National Basket Association, the order should be rejected.

The majority of Climax basket manufacturers are situated in the northern states. These factories, over fifty in number, are most numerous in New York and Michigan. These two states manufacture very nearly two-thirds of the total output of Climax baskets, which in the year 1918, according to reports submitted by manufacturers, amounted to almost thirty million baskets of all sizes. About one-half of the total number manufactured were 4-quart baskets, with the remaining number nearly equally divided between the 2 and 12-quart sizes. The 2-quart basket is the popular size for table grapes in central New York; Michigan growers, however, appear to favor the 4-quart basket. The 12-quart basket is used almost exclusively for wine grapes.

In the marketing of grapes either a solid or a flat slatted cover is usually used. This cover is secured to the basket by four or more metal fasteners. When a wire handle is used, the erally used in the manufacture of 12-cover is usually notched in the center and held in place by a bend or loop in the handle. The wooden handle is gen-quart baskets, inasmuch as it has a tendency to strengthen the package. Many manufacturers use wire handles for 2 and 4-quart baskets. In packing peaches, tomatoes and similar fruits

and vegetables a raised cover is generally used. This cover is apparently necessary to permit of proper packing, but, when used, the carriers say that it is difficult to load in such a way as to prevent heavy breakage.

*When loading car lots, Climax baskets of the 12-quart size should be loaded seven high, 4-quart size twelve high, and the 2-quart size fifteen high. All types of grape baskets carry best when loaded by the "straight system," that is, with all packages end to end, extending from one ice bunker to the other. In every other layer of Climax baskets it is necessary to load those that touch the bulkhead crosswise of the car, in order to fill the otherwise vacant space, but this should not be permitted anywhere else in the load. All slack should be taken up as the packages are being loaded, using racks to fill out at the end of the car when there is surplus space. Every fraction of an inch of surplus space from side to side of the car should be tightly filled in by loading the last row diagonally. The only place where any package should be placed crosswise of the car is at the ends of the load to fill in otherwise vacant space next to the ice bunkers.

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**Extract from Markets, Dec. 14, Loading American Grapes.*

**DIMENSIONS OF CLIMAX BASKETS MANUFACTURED PRIOR TO 1916**

## TABLE I

| Type | Probable Location of Factory | Top, Outside, Inches | Bottom, Inches | Height, Outside, Inches | Capacity |
|---|---|---|---|---|---|
| ½-lb. Candy | Penn Yan, N. Y. | 2⅞x 6½ | 2 x 5⅜ | 2¾ | 1 Pt. + ½ cu. in. |
| 2-lb. Grape | North East, Pa. | 4 x 9½ | 2⅝x 8 | 3 | 1 Qt. + 4 cu. in. |
| 2½-lb. Fruit | S. Euclid, Ohio | 4 x11 | 3 x 9¼ | 3⅝ | 1 Qt. + 36 cu. in. |
| 2½-lb. Fancy | Penn Yan, N. Y. | 4¼x 9½ | 3 x 7½ | 4 | 1 Qt. + 37 cu. in. |
| 3-lb. Grape | Paw Paw, Mich. | 5 x10¾ | 3¼x 9¼ | 3⅝ | 1 Qt. + 57 cu. in. |
| 2-qt. Standard | ........................ | 5 x11 | 3½x 9½ | 3⅞ | 2 Qts. |
| 4-lb. Grape | New York | 5 x11 | 3⅝x 9⅝ | 4⅛ | 2 Qts. + 17 cu. in. |
| 4-lb. Grape | Benton Harbor, Mich. | 5 x11 | 3¾x 9⅛ | 4¼ | 2 Qts. + 18 cu. in. |
| 3-lb. Grape | Seattle, Wash. | 5⅜x12 | 3¾x10 | 4¼ | 2 Qts. + 49 cu. in. |
| 3-lb. Grape | Augusta, Mich. | 5½x12 | 3⅞x10½ | 4½ | 2 Qts. + 57 cu. in. |
| 4-qt. Basket | Minneapolis, Minn. | 6¼x14¼ | 4 x12 | 4¾ | 3 Qts. + 52 cu. in. |
| 6-lb. Grape | New York | 6¼x14 | 4 x11½ | 5 | 3 Qts. + 64 cu. in. |
| 4-qt. Standard | ........................ | 6¼x14 | 4½x12 | 4 11/16 | 4 Qts. |
| 6-lb. Grape | New York | 6¼x14¼ | 4 x12 | 4¾ | 4 Qts. + 6 cu. in. |
| 6-lb. Grape | New York | 6½x14¾ | 4⅜x12⅝ | 4½ | 4 Qts. + 12 cu. in. |
| 6-lb. Grape | Metropolis, Ill. | 6¼x14¼ | 4¼x12 | 5 | 4 Qts. + 21 cu. in. |
| 4-qt. Grape | Portland, Oregon | 6 x14¼ | 4½x12⅜ | 5 | 4 Qts. + 25 cu. in. |
| 7-lb. Basket | Kansas & Missouri | 6½x14 | 4½x12 | 5⅛ | 4 Qts. + 40 cu. in. |
| 4-lb. Cherry | Pennsylvania | 6¾x14¾ | 5 x12½ | 4⅝ | ........................ |
| 8-lb. Grape | New York | 6½x14¾ | 4¾x12½ | 4 11/16 | 4 Qts. + 42 cu. in. |
| 8-lb. Grape | New York | 6¾x14¾ | 4⅝x12½ | 4½ | 4 Qts. + 44 cu. in. |
| 8-lb. Grape | New York | 6½x14½ | 4¾x12¼ | 5⅛ | 4 Qts. + 47 cu. in. |
| 8-lb. Grape | Brockton, N. Y. | 6¾x14½ | 4¾x12 | 5 | 4 Qts. + 54 cu. in. |
| 8-lb. Grape | Shelby, Mich. | 6¾x14½ | 5 x12 | 5⅛ | 4 Qts. + 55 cu. in. |
| 8-lb. Grape | North East, Pa. | 6¼x15 | 4½x12¾ | 5⅛ | 4 Qts. + 55 cu. in. |
| 8-lb. Grape | Burlington, Iowa | 6½x13¾ | 5 x12 | 4⅞ | ........................ |
| ⅙-bu. Peach | Oxford, N. Y. | 7½x15½ | 5¼x13 | 5 | 5 Qts. + 1 cu. in. |
| 8-lb. Grape | Penn Yan, N. Y. | 7 x14½ | 4¾x13 | 5 | 5 Qts. + 3 cu. in. |
| ⅛-bu. Peach | Augusta, Mich. | 6¼x15 | 5 x12½ | 5¼ | 5 Qts. + 5 cu. in. |
| 8-lb. Grape | Cumberland, Wis. | 6½x15 | 4½x12½ | 5⅜ | ........................ |
| Lime Basket | Texas & Oklahoma | 6¾x14¾ | 4¾x12½ | 5⅜ | ........................ |
| ⅛-bu. Peach | St. Joseph, Mich. | 6½x15 | 5 x12½ | 5⅜ | 5 Qts. + 10 cu. in. |
| ⅙-bu. Peach | Weed, Mich. | 6¾x15 | 4¾x12¾ | 5⅜ | 5 Qts. + 14 cu. in. |
| 4-lb. Mushroom | Penn Yan, N. Y. | 6½x14¾ | 5 x13 | 5⅛ | 5 Qts. + 23 cu. in. |
| ⅕-bu. Peach | Augusta, Mich. | 6¾x14½ | 5 x12½ | 5¾ | 5 Qts. + 42 cu. in. |
| 6-qt. Canadian | Penn Yan, N. Y. | 7 x16¼ | 5¾x13¾ | 5 | ........................ |
| 8-qt. Blueberry | Penn Yan, N. Y. | 8 x17½ | 5⅜x14½ | 6 | 8 Qts. + 18 cu. in. |
| 8-qt. Tomato | Swedesboro, N. J. | 7½x17½ | 5¼x15¼ | 6¼ | 8 Qts. + 25 cu. in. |
| 10-lb. Tomato | Newark, Ohio | 9 x17¾ | 7 x16 | 5½ | 9 Qts. + 16 cu. in. |
| 10-lb. Fish | Seattle, Wash | 9¼x17½ | 6½x15¼ | 6½ | 10 Qts. + 40 cu. in. |
| ⅓-bu. Cake | South Haven, Mich. | 8½x19 | 6 x16⅜ | 6⅝ | 10 Qts. + 50 cu. in. |
| 20-lb. Grape | Penn Yan, N. Y. | 8 x19½ | 6 x16 | 6⅝ | 11 Qts. + 2 cu. in. |
| 20-lb. Grape | Paw Paw, Mich. | 8½x20 | 6¼x17 | 6⅝ | ........................ |
| 20-lb. Grape | Benton Harbor, Mich. | 9 x19 | 6½x16¾ | 6¼ | ........................ |
| 20-lb. Grape | Westfield, N. Y. | 9 x19 | 6¾x15 | 6⅝ | 11 Qts. + 45 cu. in. |
| 12-qt. Standard | ........................ | 9 x19 | 6½x16 | 7 1/16 | 12 Qts. |
| 20-lb. Grape | Eau Claire, Mich. | 8¼x20 | 6¾x17 | 7 1/16 | 12 Qts. + 30 cu. in. |
| 12-qt. Basket | Indianapolis, Ind. | 8¾x20⅜ | 6½x16 | 7⅛ | 12 Qts. + 34 cu. in. |
| 20-lb. Grape | Wood, Mich. | 9 x20 | 6½x16¾ | 7 | 12 Qts. + 55 cu. in. |
| 13-qt. Basket | New York | 9 x20 | 6¼x16½ | 7 | 13 Qts. |
| 20-lb. Tomato | Henrietta, Ohio | 8¼x19¼ | 6⅞x15⅝ | 7¼ | 13 Qts. + 2 cu. in. |
| Cantaloupe Basket | Bloomington, Ind. | 9 x20⅜ | 6⅞x16¾ | 7⅛ | 13 Qts. + 59 cu. in. |

## TABLE II

**STANDARD DIMENSIONS OF CLIMAX BASKETS**

**New York Standard Grape Baskets Act**

| Type of Containers | Top, Outside, Inches | Bottom, Inches | Height, Outside, In. | Comments |
|---|---|---|---|---|
| 4-lb. Basket | 5 x11 | 3⅝x9⅝ | 4¼ | Law enacted in 1912 and repealed 1917. |
| 8-lb. Basket | 6½x14½ | 4¾x12¼ | 5⅛ | |
| 20-lb. Basket | 9½x18 | 7⅛x15 | 6¾ | |

**Pennsylvania Standard Container Act**

| Type of Containers | Top, Inside, Inches | Bottom, Inches | Height, Inside, In. | Comments |
|---|---|---|---|---|
| Standard Pony Basket | 4½x10⅝ | 3⅝x9⅝ | 3⅞ | Law enacted in 1915 and still in force. |
| Standard Basket | 6 x14¼ | 4¾x12¼ | 4⅝ | |
| Standard Jumbo Bskt. | 8¾x17½ | 7⅛x15 | 6⅛ | |

**U. S. Standard Containers Act**

| Type of Containers | Top, Outside, Inches | Bottom, Inches | Height, Outside, In. | Thickness of Bottom | Comments |
|---|---|---|---|---|---|
| 2-qt. Basket | 5 x11 | 3½x9½ | 3⅞ | ⅜ | Law enacted 1916. Provisions apply to interstate shipments only. |
| 4-qt. Basket | 6¼x14 | 4½x12 | 4 11/16 | ⅜ | |
| 12-qt. Basket | 9 x19 | 6½x16 | 7 1/16 | 7/16 | |

# Meat Inspection Law for Municipalities

### By W. PARKER JONES

*Formerly Assistant Solicitor, U. S. Department of Agriculture*

*This is the message which W. Parker Jones, a Washington attorney, gave to the delegates at the Public Health Association convention in New Orleans in October. He points out the dangers due to uninspected meats.*

TWENTY years' experience of our National Government has demonstrated conclusively that an adequate system of inspection is necessary to make the meat supply safe for human consumption, and that it is entirely practicable to inaugurate and maintain a complete and thorough inspection at a relatively small expense. To the lasting credit of our country, it is generally conceded that the federal meat inspection under the act of 1906, supplemented by the act of October 3, 1913, as they are administered by the Federal Bureau of Animal Industry, have been potent factors in making American meat and meat products the best in the world.

### Inspection Limited

While the quality and the wholesomeness of the meats we send to foreign countries and ship across state lines for domestic consumption is of the best, it is unfortunate that the same may not be said of the meat and meat products derived from animals which are slaughtered and disposed of within the borders of any one state. This is because the scope of the Federal Meat Inspection Law is limited to meats and meat food products which are transported in interstate or foreign commerce, and does not extend to meats and products prepared and sold entirely within the borders of a state.

For a number of years the number of cattle, sheep, swine and goats slaughtered under federal inspection has approximated 60,000,000 head. About half this number, or approximately 30,000,000 head, of all the animals slaughtered in the United States do not move in interstate or foreign commerce, and, therefore, do not have the benefit of federal inspection. Perhaps the most effective illustration of the service which has been performed by the federal meat inspection system is that although the recent war made unprecedented demands for the movement of a steady supply of meat products to maintain both American and foreign armies at home and in the field, and none but U. S. inspected and passed meat and meat products were purchased by this Government, there has been no serious question raised as to their quality or wholesomeness. Through co-operation, the American meat packers and the Federal Inspection Service were able to keep a steady supply of wholesome meats flowing to the points where they were most needed. The supply for our civilian population was ample to meet its demand, which was abnormally high. This was a most remarkable achievement, and one which undoubtedly contributed greatly to the success attained by the American and allied armies.

Notwithstanding the shining example of federal meat inspection, a recent survey shows that less than one-third of the cities of the United States having a population of 5,000 or more maintain any kind of meat inspection, and even in those having inspection it is frequently incomplete. The absence of a thorough system of inspection for meats slaughtered and disposed of locally is a distinct menace to the health of the citizens of the respective communities. In localities where there is federal inspection, owners of diseased or suspicious looking animals often send them for slaughter to an abattoir which does not have inspection, in preference to an inspected establishment where they would have to meet the tests of rigid inspection. The establishments which have federal inspection draw a large proportion of their cattle from the ranges and feed lots of the west, where tuberculosis is rare, hence the percentage of diseases found in the federal service is far below that which occurs in animals of the dairy regions where tuberculosis is much more prevalent. It is estimated that not less than 10 per cent of the dairy cows in this country are affected with tuberculosis, and it is a well-known fact that dairy stock forms a much larger proportion of the animals killed at the small local establishments than they do at federally inspected establishments. Further, the local establishments which do not have inspection frequently pay relatively low prices for food animals, and since they are not required to maintain their establishments, or to operate them in accord with the strict sanitary requirements of federal inspection, are free from many items of expense. This enables the uninspected local houses to sell their products at a comparatively low price, resulting in the consumption of their products, to a considerable extent, by persons of small means. This not only produces unfair competition and deprives many of our people who most need it of protection from diseases of animals communicable to man, but removes a powerful incentive from the owners of diseased live stock to improve the condition of their herds. If there were no market for diseased cattle, sheep, swine and goats, the work of federal and state officials in endeavoring to improve the quality and condition of our food animals would be easier. In considering what provisions must be incorporated in a municipal meat inspection law, it is not necessary to look beyond the standards of the Federal Meat Inspection Laws, because they are not excelled in any foreign country.

### Inspection Mandatory

The Meat Inspection Law of June 30, 1906, is primarily a health and secondarily a labeling law. Inspection of meats derived from cattle, sheep, swine and goats, prior to entry into interstate or foreign commerce, is mandatory, except in the cases of retail butchers and retail dealers supplying their customers and of animals slaughtered by farmers on the farm.

It provides for the maintenance by the Department of Agriculture of a system of inspection of establishments in the United States in which cattle, sheep, swine or goats are slaughtered or the carcasses or meat and meat food products of which are prepared for interstate or foreign commerce. When the articles are found to be wholesome, the department inspectors must mark them "inspected and passed"; if the articles are found to be unwholesome, they must be marked "inspected and condemned." No meat or meat food products are permitted to be brought into federally inspected establishments unless derived from animals which have had both ante-mortem inspection and post-mortem inspection at the time of slaughter, except farm-slaughtered animals, with the heads and certain viscera attached, which must be inspected at the time of admission. By a recent regulation, the carcasses of cattle which are slaughtered on the farm, and which are examined by bureau inspectors at the time of slaughter, may be marked "inspected and passed" by the inspectors, when upon inspection they are found to be sound, healthful and wholesome and fit for human food. Inspection may be withdrawn from establishments which violate the law or the regulations prescribed by the department. The withdrawal of federal inspection from an establishment amounts to prohibition against its longer engaging in interstate or foreign commerce in articles with which the act deals.

### Heavy Fines

Transportation in interstate or foreign commerce of any meat or meat food product not bearing the mark of federal inspection and approval is an offense punishable by a fine or not more than $10,000, or imprisonment for not more than two years, or both. The sale or offer for sale or transportation for interstate or foreign commerce of any diseased, unsound, unhealthful or unwholesome meat or meat food product, or of such an article which is otherwise unfit for food, with knowledge that the same is intended for human consumption, is punishable by a fine of not exceeding $1,000, or by imprisonment for not exceeding one year, or both.

In addition, all meats and meat food products entering interstate or foreign commerce, or manufactured or sold in the District of Columbia or in the territories, are subject to the provisions of the Food and Drugs Act. While the Meat Inspection Act does not provide authority to seize such articles outside of federally inspected establishments, the power of seizure conferred by the Food and Drugs Act is applicable to them.

The Meat Inspection Act exempts from its inspection requirements any animals slaughtered by farmers on the farm and retail butchers and retail dealers in meats and meat food products supplying their customers, but provides that if any of these persons ships his products in interstate or foreign commerce, knowing that it is intended for human consumption, and it be unfit for food, he is guilty of a violation of the law.

As originally enacted in 1906, the meat inspection act did not deal with imported meats. They were subject only to the Food and Drugs Act. By the tariff act of October 3, 1913, the importation of meats was made conditional upon their being wholesome and free from unwholesome substances, and complying with regulations of the Secretary of Agriculture. To ascertain wholesomeness, the Secretary of Agriculture investigates foreign systems of meat inspection and requires the import consignments to be accompanied by ante-mortem, post-mortem and sanitary inspection certificates, issued by accredited officials of the national governments of the countries of origin. Importations are prohibited from countries which do not maintain systems of inspection the substantial equivalent of our own, and articles found upon inspection at ports of entry to be unwholesome or to contain unwholesome substances must be refused admission into the United States. After admission, with marks of federal inspection and approval, such imported products may be carried into federally inspected establishments and must be otherwise treated as domestic articles which have been inspected and passed.

### Three Requirements

The Federal Meat Inspection Law contains three fundamental requirements. The first requirement, and one which is indispensable in any adequate system of meat inspection, is that meat and meat products to receive the stamp of inspection and approval must be derived from carcasses of animals which receive post-mortem inspection at the time of slaughter. The second requirement is that the meat and meat products must be derived from animals which receive ante-mortem inspection prior to their being admitted into slaughtering establishments. The third requirement is that the animals must be slaughtered and the products handled in sanitary conditions and in a sanitary manner. No system of meat inspection is complete without ante-mortem inspection or without adequate requirements for sanitation, but these are not so important as the post-mortem inspection.

Ante-mortem inspection is less important because the diseases of animals communicable to man which may be detected on ante-mortem inspection but which may not be detected on post-mortem inspection are generally comparatively few. Sanitary conditions of establishments are of less consequence than post-mortem inspection because it does not follow necessarily that because an establishment does not comply with modern ideas concerning sanitation, the quality or wholesomeness of the meat and meat products prepared therein will be injuriously affected.

Nevertheless, we find on examination of the municipal ordinances relating to meat inspection that the great majority stop at imposing requirements concerning the sanitary conditions of slaughter houses, and that few provide for compulsory post-mortem inspection of carcasses of animals. The omission from municipal meat inspection ordinances is especially noted of provisions by which it is made certain that meats and meat products from animals which are condemned for disease will be destroyed, for under these ordinances there is no assurance that the meats will be actually withheld from distribution. Further, in very few of the municipal laws is there any provision made for efficient administration by men who are trained and are competent in the work of meat inspection. The great success of the Federal Meat Inspection Law is largely due to the competency and the industry of the trained officials engaged in administering them.

### In Some Cities

In some cities local meat inspection consists merely in a re-inspection of meats which have been inspected by the Federal Government and approved and marked. The possibility of deterioration of inspected and passed meats, in view of the rapidity with which they go into distribution after they have received the federal mark, is slight, and a system of municipal inspection which covers merely the re-inspection of meats and meat food products which already bear the federal stamp accomplishes little. Much more is to be accomplished by a system which directs its activities toward the inspection and disposition of the products of animals which are killed and distributed locally.

There are a few of our American cities which have adequate municipal meat inspection and which also provide adequate forces for administering the laws. The City of San Francisco has provided for the inspection of meat and meat food products offered for sale within the City and County of San Francisco in Ordinance No. 1265, approved August 1, 1910. This ordinance reads as follows:

> Be it ordained by the People of the City and County of San Francisco as follows:
>
> Section 1. No person, firm or corporation shall expose or offer for sale, or sell or otherwise dispose of, or have in his possession within the City and County of San Francisco, any meat of any cattle, calf, sheep, lamb, goat or swine, which does not have upon it the meat inspection brand or other mark of identification of the Board of Health

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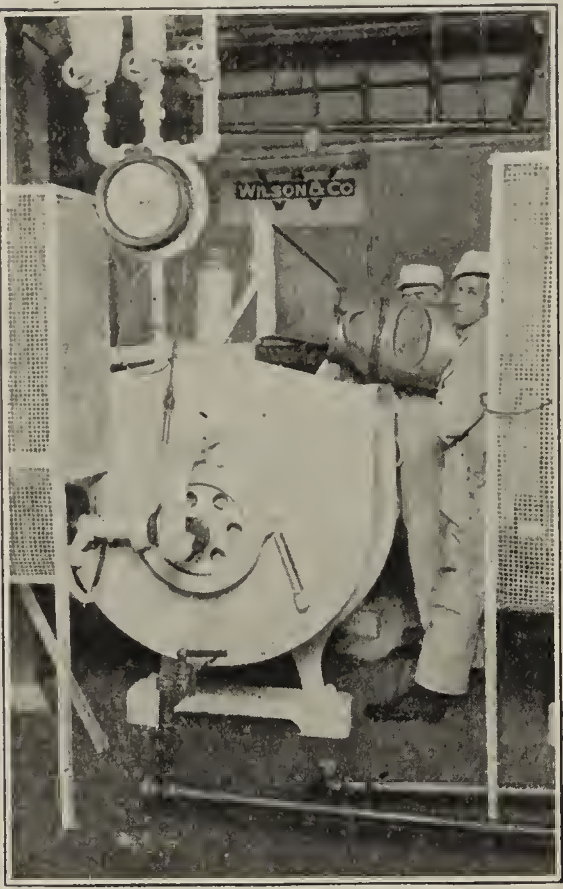
# Dietetic Value of Margarines

By *Eleanor Lee Wright*

OUR daily bread must have some sort of spread to make it palatable and interesting. Oleomargarine is one which does this and at the same time, furnishes great nutrition at a moderate cost. For this reason it is truly an economical food.



**Getting Ready for Ripening**

Ever since the discovery of this product in France, nearly fifty years ago, European nations have been faithful users of "margarin." Americans have been somewhat slow in awakening to the facts concerning the wholesomeness and composition of this form of food.

Prejudice keeps many people from eating oleomargarine because they believe it to be a "substitute" food and imagine that it is made of inferior materials. If they were to visit a sanitary plant and see the care and scrupulous cleanliness which prevails in the preparation of a high-grade brand of oleomargarine they might quickly change their views.

Science and skill have enabled the producer to place on the market today an article which is not only pleasing for table use, but ideal for shortening and cooking purposes.

Every attention is given to insure uniform quality and purity. The first step being—the testing of the ingredients for freshness and excellence. After passing this procedure in the laboratory, they are sent up to the oil room where the different oils are blended in steam-jacketed tanks.

Milk is prepared for oleomargarine by placing it in a machine and pasteurizing it in the usual manner. A culture is then introduced and the milk is allowed to "ripen" until an expert judges its "rightness." This is a very important process as the same degree of ripeness must be attained each time, otherwise the flavor of the finished product might vary.

The oils are next run down into the large churns where the great dashers mix them with the milk. The best grade of oleomargarine has cream mixed with it at this time, which improves the flavor and texture. The churned product is next passed into cold water which immediately crystallizes it. The oleomargarine is then skimmed off, drained through cheesecloth and placed in trucks. The trucks are sent into a room of uniform low temperature, where the product is allowed to stand for twenty-four hours. This allows the product to set and to drain off excess moisture. After this, the oleomargarine is put into a salting machine which blends the salt thoroughly, by means of heavy revolving rollers and discs.

No artificial coloring is added. The very delicate yellow tint is due to the oleo oil. Different sections of the country demand varying amounts of salt in oleomargarine and prefer different shaped prints or bricks. An effort is made by the producer to observe such details in preparing his product for these localities. It is interesting to note that the people handling this food product wear clean cotton uniforms and gloves and that government inspection takes place throughout the entire process of manufacture. Surely the last named fact ought to assure any doubtful consumer.

Nut margarine which is steadily becoming a more popular food is a vegetable product. It is made by churning cocoanut and peanut oil with milk. Being white, it may have coloring added for table use. However, if this color were to be added by the manufacturer a federal tax of ten cents per pound would be attached to the original cost.

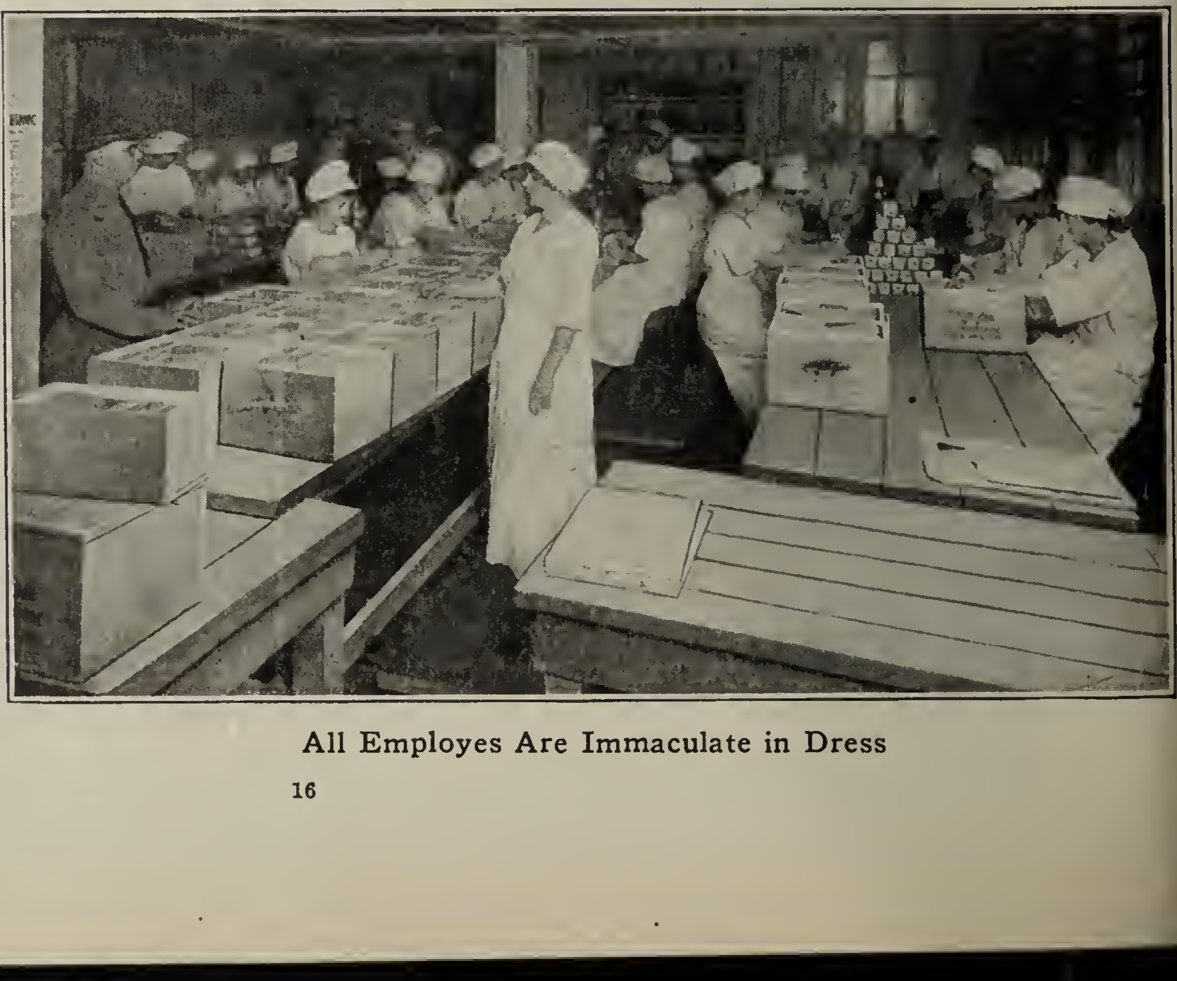
From a dietetic standpoint oleomargarine is important, primarily, because it is a wholesome form of fat, having an energy value of about 3,500 calories per pound. Investigators have proved that it is well assimilated when taken into the body which places it favorably among the heat-producing foods.

## Composition

| | |
|---|---|
| Fat | 85% |
| Water | 11% |
| Ash | 3% |
| Protein | 1% |

## Lesson on Oleomargarine

I. Why is oleomargarine an economical food?
II. Tell all you can about the discovery of oleomargarine.
III. How is high grade oleomargarine made?
IV. What is meant by nut margarine?
V. Compare the food value of oleomargarine with that of other fats.
VI. Make a cake using oleomargarine for shortening. Observe the flavor and texture.
VII. Prepare white sauce using oleomargarine as fat.



**All Employes Are Immaculate in Dress**

# City Food and Drug Control Its Function and Scope

*Dr. F. C. BLANCK*
*Food and Drug Commissioner, Maryland*

*Speech Delivered at American Food and Drug Officials' Convention*

THE nature and extent of municipal food control is a question which probably causes divergent replies. At the outset, it is assumed that municipal food control is exercised by the local department of health as so far no other purely local agency has undertaken this function. Some health officers are inclined to look with disfavor on food control except in so far as the transmission of disease is concerned. Others take a broader view and include the economic aspect as well as the health side of the question. In order to bring out a full consideration of the problem, an effort has been made to assemble such views as have found expression in our recent literature.

### Municipalities Lead

Just as our earliest organized health activities were undertaken by municipalities, so our primary food control work was originally undertaken by local authorities. These efforts were directed against the sale of unsound or unwholesome meats, vegetables and fruits, but no special provisions were made regarding the sale of adulterated or misbranded foods. As local food control developed, increasing consideration was given to the sanitation and conditions under which food products were sold. In fact, the trend of recent municipal food legislation is clearly in the direction of sanitation and protection from contamination. Only rarely does one find a local ordinance considering specifically the adulteration of foods or making any effort to establish standards of purity with the exception of milk ordinances.

This failure to consider economic aspects is probably due to the health officer's training and his greater interest in problems of a purely public health nature. That this attitude exists is clearly evidenced by some of the recent publications. Chapin, in a paper on "The Relative Value of Public Health Procedures," gives food adulteration a value of 0, food sanitation a value of 10, milk adulteration a value of 3, and milk sanitation a value of 17, out of a total of 1,000 for all health activities. He says further, "According to popular notion, the principal functions of a city department of health are sanitation and food control. Another time-honored and popular means of promoting the public health is control of the food supply.

Dr. F. C. Blanck

"This control naturally is divided into the prevention of adulteration and the promotion of cleanliness. Though there is much lurid literature on the dangers of impure food, as a general thing, adulterants are as likely to be healthful as unhealthful. Adulteration, with rare exception, is an economic and not a health problem. That food is not rarely infected with human secretia and excretia by those who handle it, and thus becomes a real factor of importance in the transmission of disease is certain. It is worth while to try to check this. The elimination of infected food handlers also gives some promise, but its true value is yet to be determined."

In an earlier article on "How Shall We Spend the Health Appropriation," the same author says, "Milk supervision from the chemical standpoint is necessary to protect the pocket of the father as well as the nutrition of the child. It is worth all it costs. The inspection of foods has little relation to the public health, though it is a subject which yields many startling news items and lurid editorials." Schneider, in discussing "Relative Values in Public Health Work," gives milk control a value of 2.7 and food sanitation a value of 0.1 out of a total of 100.

### Regulating Food

MacNutt, in his "Manual for Health Officers," considers regulation of food supplies under the following classes of conditions: 1. Infection. 2. Contamination with dirt and other foreign material. 3. Decomposition. 4. Adulteration, preservatives, etc. He says "On the whole, the main public health aspects of food supplies other than milk relate to those foods which may be infected and convey infection though being consumed in the raw state. Otherwise (leaving out of our present scope dietetic and nutritional problems) the matters here considered raise comparatively few responsibilities for the local health officer."

Koehler, in a paper on "Food Inspection and Food in Relation to Public Health," says, "In food inspection work a distinction should always be clearly made between food control as a means of insuring fair trade, food standards based on esthetic values and food inspection from a health conservation standpoint. The objects of the last two are often confused, especially by the general public and, as a result, health departments have not yet been able to confine their food inspection activities to purely disease-preventive channels."

Lederle, in discussing "The Function of Municipal Authorities in the Control and Improvement of Food Supplies," states that "In view of the fact that the enforcement of pure food laws and regulations in cities usually falls to the health authorities, and probably rightly so, a serious misapprehension or misunderstanding arises in the minds of the public as to the relative importance of the various phases of the work as a whole compared with other public health problems." He then makes a comparison with other lines of health activities, but concludes by saying "I am, nevertheless, in absolute sympathy with the closest possible supervision of foods. Even though other problems are of greater importance, it is, nevertheless, the duty of the government to maintain the purity of our food supply and to prevent both dangerous adulterations and commercial frauds. Food should be sound, wholesome, unadulterated, prepared with care under proper sanitary conditions and properly labeled. The most contemptible of all law breakers is the adulterator of foods."

Further, he says, "Logically, the problem of preventing the deception of the customer by the substitution of harmless but cheaper food ingredients, or the use of unlabeled preservatives, should be clearly distinguished from the protection of the consumer's health by preventing substitutions or adulterations which are really dangerous. In the actual carrying out of our system of administration of food laws, the entire work of food inspection, including both these phases of the problem, is frequently placed upon the municipal health department. The result is that the health department is called upon to perform functions which, strictly speaking, are outside its true field. Nevertheless, public sentiment is so thoroughly aroused on the subject of food adulteration that, once the duty has been placed upon the health officer, the community will tolerate no evasion of the responsibility and looks to the health authorities for protection, not only from physical injury, but from dishonesty as well. Not without facing the certainty of severe criticism, can public health authorities relax the inspection and control of certain kinds of food adulteration which they perfectly well realize involve little or no danger to the public health."

The food control is clearly recognized as a proper function of a municipal health department is shown by numerous reports and investigations of the activities of such organizations. Fox and his co-workers of the U. S. Public Health Service, in careful studies of various city departments of health, have invariably given a place to food control in the local health program.

Investigations of city governments by the New York Bureau of Municipal Research also include food control as a proper field of activity. In a report on the Government of the "City of Rochester, N. Y.," by the N. Y. Bureau of Municipal Research, this significant statement appears, "Investigations conducted by the Bureau of Municipal Research, as well as other civic and municipal organizations, have shown that protection of the food and drug supply is an important part of health service. It has been shown time and time again that thorough inspection and enforcement of health regulations alone can prevent the contamination and adulteration in every possible way of food and drugs."

Ruediger, in a paper on "A Program of Public Health for Towns, Villages and Rural Communities" includes food and drug inspection in the program of activities of such a health department. Phelps, in considering Co-operative Health Administration, under the heading "The Equipment and Duties of a Local Health Officer," says, "Under the general administrative head there is, first and foremost, a laboratory fully equipped for chemical and bacteriological investigations of milk, water and food and for diagnostic examination of specimens. . . . Next in order of importance comes the care of the general food supply, especially milk."

The reports of the Committee on Organization and Functions of Municipal Health Departments of the American Public Health Association include a Bureau of Food Inspection, subdivided into divisions of Milk Inspection, Meat Inspection and General Food Inspection. Water, milk and food supplies, etc., are considered as matters affecting the public health and state that "a health department should concern itself with all of these matters, and the organization should be such that a direct and compelling influence should be exercised over them in every municipality."

The preliminary report of the committee on the standardization of the work of public health officials mention the standardization of the work of such branches of a health department as Child Hygiene, Food Inspection, etc.

Craster, in a paper on "The Health Officer and the Enforcement of the Law," in discussing food inspection, says, "Food and drug laws governing impure or misbranded foods or drink should be enforced to the utmost. There is no more flagrant extortion of the public than in the sale of bad or adulterated food. The citizen cannot protect himself in this respect and must rely upon the health officer to assure him of the wholesomeness of his purchase. The value of a rigid food inspection goes further than the immediate control of crime, inasmuch as the very future of our race is dependent upon a supply of food free from sophistication and denaturing processes."

Even in the education and training of our public health workers in the various Schools of Hygiene and Public Health provision is made for instruction in the control and analysis of foods. During the past summer, under the direction of the Training School for Public Service, there was given a course in Public Health Administration which included food and drugs in the program.

According to the foregoing expressions, it must be conceded that food control, as a special health function, is a legitimate field of local health department activity. It must also be admitted that the citizens of a municipality are entitled to the fullest measure of protection against adulteration of their food supply and also its misbranding. While these latter considerations may not have a demonstrable health benefit, no one can possibly urge that, for this reason, they be assigned to some other purely local agency. The supervision, in its broadest sense of the food supply of a community is, in the final analysis, a local problem.

Who will contend that, because of the Federal supervision of foods in interstate commerce, there is no local need of following the sale of such products to the ultimate consumer? Who will maintain that, because of state food laws and state inspection, there is no need for local supervision? The health officer, who relies solely on Federal and state agencies for such protection, is laboring under a mistaken sense of security. Furthermore, the health officer, by the very nature of his responsibilities, must make local inspections of foods in their relation to the dissemination of disease. Is it not, therefore, logical economical and more efficient that the entire work be conducted by a single agency rather than by a municipality of organizations

What is also of significance under such an arrangement is that the state authorities can devote more time to the problems of food production within the state and give a fuller measure of protection to those smaller local communities where

Continued on page 37

# Ingredients for a Standard Ice Cream

*By JOHN B. NEWMAN*

*Secretary of the Association of American Dairy, Food and Drug Officials*

*In this speech made before the Ice Cream Manufacturers' Association, Mr. Newman reviewed the proposed Standards Rule for ice cream presented by the manufacturers and approved of it all but one clause, to which he made serious objection.*

WHEN we think of the many things that enter into the making of a finished standard ice cream, we must broaden the field and get away from the narrow practice of thinking of the purity and proportionate quantities of a few certain ingredients only. Too many manufacturers lay stress only on the butter fat content of ice cream; others confine their attention to some of the normal ingredients, and then some day after they have used every care in the selection of the materials they use in an effort to make an ice cream that complies with the standard (and we will say it does), they are dumbfounded to find there is criticism of their product or that their competitor is increasing the volume of his sales in one of their chosen districts. An explanation of this, in my estimation, is found largely in the fact that they do, as I said before, confine themselves strictly to this limited viewpoint that the ingredients are all there is to think about—forget the factory, the equipment, the method, the personnel of the force and the many factors around the plant that tend to affect the flavor of the ice cream in a manner that nullifies the efforts of such persons who have been careful in the selection of their ingredients.

We might assume that the man who was careful in the selection of his ingredients would be careful with everything else connected with the manufacture of his ice cream, and I presume in a great majority of cases this would be true, but we have had the painful experience of finding that many men do not appreciate the care necessary around the plant, and we have found a great deal of not only trouble, but lack of palatability—that essential quality which causes cumulative patronage—comes from this careless disregard of these other important factors.

Officially and personally I will say the wholesomeness of ice cream (and I am using the word "purity" in connection with wholesomeness) is very much more important than the fact that it contains a certain per cent of butter fat, or whether it is flavored with a straight vanilla or a compound of vanillin and coumarin, etc. I believe the things that tend to make ice cream unwholesome are the same things that go to make it unpalatable, and the small percentage of the industry that has not learned as yet to understand this should receive the attention of the whole association, because it is the errors in these few plants that fix the attention of the critics and the consuming public on the product to the disadvantage of the industry in general. The injury to the one individual manufacturer might in some sense of the word be a good thing, as it would either put him out of business or make him correct the conditions; but the whole industry suffers unjustly in the meantime.

When we think of the great hold ice cream has on our consuming public and the way one manufacturer's product gains in favor over another, we must acknowledge that the consumers are able to discern between palatable and unpalatable ice cream, and between the delicious and those of less appeal—I won't say bad, I mean this in a comparative way. I have noticed this discrimination in my own family and in my own community, and one seldom finds upon investigation that the man making the satisfactory or most attractive article is doing so in the least suitable place, invariably one finds the reverse. Once in a while a poor product might be so flavored and disguised that it would fool a consumer, but I do not believe such a manufacturer would "get by," so to speak, for any length of time.

There are a few fundamentals the association should stand for as prerequisite in the manufacture of ice cream, before any ingredients are considered; namely, the health of the employes, their natural inclination to be clean and an understanding why they should be clean, a clean plant (and a clean plant will induce the working force to keep clean), a properly equipped plant and a properly equipped delivery system.

I would rather eat six, four or two per cent butter fat ice cream which came from a sanitary factory (and I mean by that, sanitary in every way), than I would a fourteen, eighteen or twenty-two per cent ice cream from a factory that is questionable from a sanitary standpoint. I believe the appetite, desire or relish of the general public would be more affected in regard to their desire for ice cream if they were to read an exposé of a sanitary investigation by the Food Department of a plant where conditions were bad from a sanitary standpoint, than they would by learning of the conviction of a man charged of selling four per cent ice cream.

There isn't any argument why the operator should not buy good cream or butter fat. His whole and condensed milk supply should be from a known source, and the nuts and fruits should be sound and sweet, and the gelatine or powders should be free from impurities. There is no reason why these other things should not be standardized. We are working at cross purposes until they are.

The fact that there were one hundred and ten millions of gallons of eight per cent ice cream sold, as against ninety-eight millions of gallons of all other fat content standards combined, may show that in so far as the consuming public is concerned they are not depending upon the butter fat content alone to satisfy them. Regardless of what the butter fat content might have been in the larger sales, the fact of the matter is that the product must have been satisfactory to the consumer's palate. It is well known to all of us, it has been proved by many scientific tests, that the foods which appeal to the palate of an individual are eaten with the greater relish, consequently are digested very much more rapidly and thoroughly. This is indicated by the condition commonly known as "the mouth watering for something." The pleasing appearance of food, the savory odor associated therewith, or—with eyes and nostrils closed—even the sound of the word we know as its name conveys through the ear to the mind a stimulation similar to that of "the pleasing of the palate," and this causes immediately a flow of digestive agents; as the saliva flows in the mouth, so the digestive juices begin to flow in the stomach and it is ready at once to do its part in digestion. The assumption of some persons that ice cream, being cool, interferes with the temperature required for digestion is offset, in my opinion, to a great degree by the stimulation mentioned; knowledge of the palatability of this article about to be eaten creates such a pleasant feeling of anticipation in the person that the "watering of the mouth" and increased flow of digestive juices engenders more than offsets the difference in temperature.

### Warm Weather Food

Usually people do not drink hot bouillons and hot chocolate on warm days; they think of cool ice cream, and think of it with pleasure, and they consume it with great relish. All of this will be nullified if the flavor is not satisfactory. You may have a poor body, a grainy body, but if the article is of good flavor the public will not complain; they will not eat as much as they would if it both pleased the taste and had a better body. Some manufacturer may say he can "doctor up" any kind of poor condition with flavoring. I think one might, to some extent, for the time being, but the human system will start to tear away the camouflage and when it gets right down to the ingredients and to conditions that may have changed them, then the camouflage will be of little avail; there will be an after taste or condition remaining with the consumer that will result in his remembering that particular lot of ice cream was not satisfactory.

It is very pleasing to be able to say we have found very little fault with the ingredients used in ice cream in this state. We have found some fault with the sanitary condition of some of the plants, in fact, under the new licensing law, in operation since July 1, we yet are withholding licenses of some of the plants in this state, and some in this city, and they are not to be issued until the operators comply with the sanitary law. To issue them would not be just to the man who does comply, nor just to the consuming public, let alone the man who has the law to enforce and who has to stand up and take the criticism, fair and unfair. The law provides for the prosecution of operators without license. The other choice is to make their places comply with the sanitary law of the state. The extent of which our attorney is busy with ice cream affairs rests entirely with the operators of insanitary plants.

I wish to congratulate your association upon the spirit which prompts the effort to improve definitions and standards, and I want to say I am in hearty sympathy with the yearning for a nation-wide uniformity—a real standard. Your undertaking is a very laudable one. I wish all the associations of food manufacturers would follow this progressive movement and work upon standards for their own trade.

I have before me standards and definitions reported by your committee, and I notice the caption reads in part, "adopted, Chicago, May 4, 1918." The expressions in the first, second and fourth sections appear to be especially worthy of commendation giving, as they do, the impression of a very happy choice of expression.

### An Objection

However, I sincerely trust you have not so far committed yourselves to this attempted expression of the ideal that reconsideration is prohibited. It is hoped these are tentative expressions.

The third paragraph of your association circular on definition and standard reported by your committee, and to which I refer, reads as follows: "Standard ice cream contains not less than (8) eight per cent milk fat and the content of milk fat and milk solids not fat combined shall not be less than eighteen (18) per cent, except that when the ingredients of standard ice cream include eggs, fruit or fruit juice, cake, confection, cocoa or chocolate, or nuts, such reduction of the percentage of milk and milk solids not fat, as may be due to the addition of such ingredients, shall be allowed."

Granting that this association is possessed of the vision which prompts a desire to serve the patron to his satisfaction, realizing that permanent profitable patronage depends primarily upon satisfaction, it may be concluded that Section 3 is an attempt to assure your patron he will receive at least a certain minimum of nutrient in "Standard Ice Cream" for his money, regardless of any unusual or forceful appeal the other grades may make through variety of ingredients, flavors, or appearances. With this thought in mind, a reading of Section 3 brings the question, "Might it not be well to come to a stop (for a time at least) before the word 'except'?" I am not able to agree that where there are nuts, cocoa, chocolate, cake, fruit juices, fruits, or eggs, the per cent of milk fat and milk solids not fat may be reduced, as I doubt very much if your association should go on record as accepting as "Standard" ice cream mixtures of cake or confection in large proportions, such as a layer of cake or confection in a brick of ice cream. I am very apprehensive you would be verging on the combination known as "pie a la mode" or "cake a la mode." I suspect you would not want the cake and pie-pastry man to put ice cream on his products and label such products "Standard Ice Cream."

### Putting In Too Much

Effort to put too large a quantity in a container often brings disaster to the container. Should not a "standard"—definition of a standard product—be as simple as possible? Should it not be a simple unit? Should one intentionally mar the simplicity? I believe we can agree the model should be plain. As a measure of value, should it not be something of recognized and permanent value? Should we dwarf it, or deform it, by grafting thereon artificial growths of another species? The answers seem not difficult. Reason may be expected as to all things, and judicious tolerance should be accorded.

The question of what the tolerance should be now confronts us. Assuming as a foundation thought that the man giving the greater value is entitled to the greater return; if one manufacturer uses a household flavoring, a well-known extract, and a second uses a flavoring having admitted nutritive values, the second may be reasonable in seeking to balance his account with a corresponding reduction of butterfat, or solids content. Granting that cocoa and chocolate have these admitted values, users of them probably wish a credit for added value. How about the man who uses a meed of raw nutritive value and gets his color with a highly carbonized sugar? Is he entitled to the same credit, or only a proportional credit? If proportionate credit, who shall determine the proportion —extent—under the standard being considered? Is there available information concerning the relative values of the various proteins, or a measure of the values of vitamines (solubles), which warrants any conclusion by the person assigned the

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Armour's Veribest Oleomargarine is made of sweet animal and vegetable fats, churned in rich pasteurized milk and salted to taste. The selected high grade materials employed in the making of Veribest Oleomargarine insures a most palatable spread and the highest food value.

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duty of determining the proportion of credit?

Considering the expression, "such reduction of the percentage as may be due to the addition of such ingredients, shall be allowed," the Commission of Definitions and Standards is interested in meeting the wishes of the trade whenever possible consistent with the duty of safeguarding the interests of the consumer. The first part of Section 3 conveys the idea your committee agreed the consumer shall be assured that all grades of ice cream shall contain a minimum of combined nutritive values equal to an ice cream containing eight per cent of milk fat and of milk solids not fat of at least ten per cent. Use of the expression, "or better," in the fourth section appear to confirm this idea. Frankly, can we be certain, as yet, that the buyer of a brick of ice cream comprised in part of a layer of cake of the usual size, will be assured of his due value if the fat content, or solids not fat, are reduced? The same question may be asked about a quart package having a breakfast food distributed through the so-called "standard ice cream," no matter how extensively or extravagantly advertised that breakfast food may be. Might not such a product be so made that the purchaser would be strictly fair in demanding more than eight of fat and ten of solids not fat, in order that he may get values at least equal to those given the purchaser of the less ornate product, plain "standard ice cream?"

Venturing into the realm of what may be termed "fancy" ice creams, may we not rely for the present upon future commercial experience, the law of supply and demand, desires of the customer and ambitions of the manufacturers, and similar factors, to give us eventually those purely trade distinctions of "fancy," "a little bit better," or "more choice," due to the extra values given. Might it not be said, "He who wants Art for his stomach, let him pay for Art?" The fair minded customer should be willing to pay you for extra service.

Does the trade deem it fair to ask the chemists to undertake the enormous task of trying to determine the values of all those other ingredients as food materials expressed in terms of milk fat and milk solids, devise new and necessarily elaborate methods for tearing apart the complicated combinations resulting from varied recipes or formulæ for "fancy" goods and make a necessary multitude of intricate calculations before the food official, or anyone can say, "This is, that is not, 'standard ice cream?'" Can you not imagine the chaos? How many different products would you have as "standard?" Is this for the best interest of the trade?

If this 8 and 10 percentage is your preference for the basic unit of quality, might it not be well to declare to the average customer "We will give you as 'standard ice cream' a sanitary product with at least 8 per cent of milk fat, and the combined content of milk fat and milk solids, not fat, will be at least 18 per cent?" Why make complicated the declaration of the unit which is the basis for comparisons? The suggestion is offered, respectfully, for your consideration, that we all co-operate to the best of our ability, and that we show this spirit by the simplicity of our requirements, and that as evidence of this spirit all of the third section beyond the word "except," and that word be eliminated.

I know your association as an organization stands for the things that are going to benefit the industry. You are very fortunate in being behind a product that is so popular. Personally, I think ice cream is worthy of all the favor the public accords it, and I hope your associa-

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# John B. Newman Leaves State Work To Go With Wholesale Grocers

JOHN B. NEWMAN, one of the most widely known food control officials in the United States and whose ten years of constructive work in behalf of pure food placed the State of Illinois in the fore as a pure food state, has resigned his position as superintendent of the Division of Foods and Dairies of the State Department of Agriculture, to become executive agent of the National Wholesale Grocers' Association. Announcement to this effect was made from the office of Governor Lowden at Springfield.

In this connection it is recalled that the first law enacted in the United States for the regulation and supervision of the traffic in eggs was passed by the Illinois legislature at the request of Mr. Newman when he held the position of Assistant Food Commissioner; and that the Illinois Cold Storage law drafted by him, which has become the model in the fourteen of seventeen states which have such laws, was the basis of the cold storage regulations for the United States enforced by the food administration during the war, and has been recommended by the American Association of Dairy, Food and Drug officials to Congress as a model bill for a national law which Congress has been urged to pass. Mr. Newman also was sponsor for the Illinois Sanitary Food Law which is considered by many food experts to be the best of any state. The Illinois egg law has become the basis of the "Uniform Good Egg Law," and each of these laws have for their purpose the conservation of foodstuffs and the assuring to the consumer of pure foods manufactured, stored and disposed in a sanitary manner.

### First State Work

Mr. Newman, whose home is in Elgin, Ill., first entered the service of his state July 26, 1909, in the administration of Governor Charles Deneen, as assistant state food and drug commissioner, and upon the reorganization of the state government was made superintendent of the Division of Foods and Dairies in July two years ago by Governor Lowden. Although a graduate of the University of Notre Dame, with a degree in accounting and of the University of Michigan with a degree in law and admitted to the bar of Illinois, Mr. Newman's interest has been devoted to food problems ever since his service with Sprague, Warner & Co., as a young man, when he first came into contact with the many problems of wholesale distribution of food products. He was employed in the first plant in the United States where evaporated milk was first successfully produced in a commercial way, and followed his experience with four years of service as inspector and field superintendent for a creamery company of which his father, John Newman, was head and which operated fifty-two plants in Illinois, Wisconsin and Iowa. For the nine years prior to his entering the state service he was with W. S. Moore & Co., well-known South Water street firm of Chicago.

John B. Newman

### Issues First Bulletin

The first state bulletin issued under the administration of Mr. Newman, on the care of milk in the home, attracted wide attention; copies having been sought from such distant places as the University of London and the Hawaiian Islands. This treatise is still considered by authorities as one of the best on the subject, although one of the first to reach the public on the value of milk as a food. His investigation of this food product lead him to a serious study of the breeding and care of dairy cattle and the knowledge he acquired resulted in a request by the National Holstein Friesian Association that he take charge of the extension work of that association. He refused this, however, to remain in the state service at the request of Governor Lowden.

For the past four years Mr. Newman has been secretary of the national association of state food and drug control officials and as a result of his work in that organization has become well-known in food circles throughout the United States. He frequently has been called into conference with national officials at Washington in connection with various food problems, and has drafted municipal milk ordinances for many towns in Illinois. Mr. Newman is chairman of the Illinois State Food Standards Commission, for several years was vice-president of the Illinois State Dairymen's Association and for thirteen years was an official butter inspector for the Elgin Butter Board.

Mr. Newman's work as a state official and his knowledge of national food problems with their relation to the questions of economic distribution, attracted the attention of the governing officials of the National Wholesale Grocer's Association with the result that he was asked to become their executive agent in the field with the title of assistant to the president of the organization, Mr. Arjay Davies. He is expected to take up his new duties by the first of December, spending several weeks at the headquarters of the organization in New York. Later he will travel in the Middle West and South in the interests of the organization.

### His Successor

Although no official announcement has been made, it is known that Mr. J. L. McLaughlin, who has been assistant commissioner of foods and dairies for two years, will be promoted to the position made vacant by Mr. Newman's resignation, provided he will accept the place. Mr. McLaughlin has had an extensive experience in pure food work, especially with dairy products, and at one time was connected with the instruction staff in the dairy department of the University of Illinois. He has operated creameries, cheese factories and condensed milk plants at various places and was persuaded by Mr. Newman to leave commercial activities to help in the reorganization of food control work in Illinois. Since his connection with state work he has had complete charge of all work connected with dairy products.

## Against Use of Saccharin

THE use of saccharin in place of sugar, which many housewives are being tempted to resort to in these days of sugar shortage, may involve menace to the health, and threfore is to be condemned, according to specialists in the Bureau of Chemistry of the United States Department of Agriculture. In most cases housewives have turned to this substance in their emergency, because they do not understand that saccharin is a harmful drug; to consider it a harmless healthful substitute for sugar is absolutely false, say the Government's chemists.

The Department of Agriculture has received a number of inquiries from housewives in the last few days concerning the properties of saccharin, and in every case it has answered by condemning the use of the drug for cooking purposes. It calls attention to the fact that the Bureau of Chemistry is now aiding in the prosecution of a large St. Louis concern which makes saccharin for violation of the Food and Drugs Act.

"The attempt to exploit the shortage of sugar and create a demand for saccharin for use in place of sugar endeavors to capitalize the public's lack of knowledge of the properties of this substance and the Bureau of Chemistry feels called upon to reiterate the warnings which it has given repeatedly in its publications," said Carl L. Alsberg, chief of the bureau, who cites his testimony before a subcommittee of the Senate's Committee on Agriculture a few days ago, on this same subject, as showing the extent of the present menace due to the public's not being properly informed.

"The department regards the use of saccharin in food as a menace to health," says Dr. Alsberg. "This is the position of the department today as it was in 1911, when official decisions were rendered. There has been no scientific evidence adduced on the basis of which the department would be justified in any manner in altering its position.

"The department regards food to which saccharin has been added as adulterated, since a substance has been added to the food which may render it deleterious to health. It also regards it as adulterated in that a substance of no food value whatever has been substituted for sugar, a very valuable food. The department has now pending a criminal prosecution against one concern for the shipment interstate of a parcel of saccharin labeled as harmless. Furthermore, a majority of the States prohibit the use of saccharin in food, either by statute or by regulation."

## Terms Standardized

A SET of 28 rules and definitions of terms used in the fruit and vegetable trade has been worked out by four of the largest produce trade organizations. It is an outgrowth of the cooperation of these four organizations with the Food Administration and the Bureau of Markets of the United States Department of Agriculture. Included are definitions of "To-morrow's shipment," "To-day's shipment," "F. O. B. sales or quotations," "C. A. C. sales," and "Minimum and Maximum loading."

Wide adoption of these rules and definitions will mean fewer misunderstandings between shippers and receivers, and the Bureau of Markets therefore urges that they be adopted by all individuals and firms handling fruit and vegetables.

While the Bureau of Markets has endorsed these rules and definitions, they are not contained in any department publication. The trade organizations which have adopted them and from which printed copies may be obtained are: National League of Commission Merchants of the United States, International Apple Shippers' Association, Western Fruit Jobbers' Association of America, and American Fruit and Vegetable Shippers' Association.

# The Great Value of Food Storage

AT a time like this when the high cost of living conditions are stimulating every legislator and city councilman to propose a law against some class of food producers or storers, the need for public education on the subject of storage of foods is recognized by J. D. Mickle, Dairy and Food Commissioner of Oregon. He has issued a bulletin in which he explains in the simplest terms, so that all may understand, the reasons for food storage.

In this bulletin he tells the people of his state that the storage houses are open to any who want to use them, contrary to the general public opinion.

In telling of the necessity for storage houses and their methods of operation the commissioner says:

It is a fact that the general consuming public of today understands but little of the food storage problem. Their opinions, out of which their criticisms arise, are often biased, unfounded, and the offspring of misinformation.

Food storage is not confined to the preservation of perishable articles alone, for the warehouseman who carries stocks of wheat, corn, or oats is in the business just as much as the man who handles meat, butter or eggs.

The storage granaries of the country are seldom bare of these products but long before the new crops come in, the ownership of whatever stocks may be on hand have passed from the hands of the producer, and if not held by millers or exporters, they are in the hands of those who are holding for future demand.

We have often wondered why the cry against food hoarders is nearly always directed against those who are the handlers of perishable products. Whereas, it seems to us that the man who hoards canned goods, dried fruits or cereal products should be held just as answerable as the other. The facts are, however, that any man who engages in the business of preserving foods for future use is really a public benefactor in more ways than one. In the first place, the incentive to store foods usually arises out of a condition of surplus production, or out of seasons of heavy production as against other seasons of limited production, and unless the condition of surplus or heavy production is met with preservation, then waste and decay take place and in the lean times we suffer for want of the foods that we could not consume during the period of plenty. Thus, nearly every housewife becomes a storer of canned fruits and vegetables and so the miller holds grain, the packer meat, the creameryman butter and cheese, and the produce man his eggs; but the trouble seems to be that in the minds of many people there is a fixed opinion that the man who stores meat, butter, eggs or perishable products operates differently from the other food handlers, and instead of being a public benefactor, he is a public enemy. In some instances, through wrong manipulations, he may be a public enemy, but in the main he is not, for he not only provides for a more equal distribution of food products throughout the year, but he also acts as a price stabilizer to both consumer and producer. In that respect, let us confine ourselves to butter, cheese and eggs. The season of heavy production of these products begins in April and runs to the first weeks of July. It does not require much business foresight to see that if all the butter, cheese and eggs produced in those months in this country were thrown upon the market, the trade would be demoralized, prices would go to pieces, for the time being. This might be all right from the standpoint of the consumer, but his profits would only represent the producer's loss, and for one class to live at the expense of, or loss to, another class, produces a bad condition of economic affairs which in the end is detrimental to all. Business operations have taught the creameryman and the produce man these lessons; therefore, in times of overproduction he steps into the breach of temporary overproduction, or surplus, puts up his money for the product (for it must be paid for), gives the consumer all that he desires for immediate consumption and puts the remainder away in preservation for a later day. Right here is where those who are misinformed usually go astray. Please note, we said that the storer puts up his money for the product. In these days, money cannot lie idle; it must work just as men and women must labor. It must earn interest or the investment becomes unprofitable; furthermore, when a storage operator assembles quantities of food products together he assumes certain risks upon his investments, and if he is a wise and prudent man, will cover these risks with insurance. In many instances he does not own the storage house or plant where his products are kept, but he pays rental for the space occupied by his commodities just as others pay storage rental on household goods in other warehouses.

Then there is always a certain or uncertain percentage of loss that attends the storage of any commodity and more especially perishable products. Each and all of these items become just as legitimate a part of future cost of the article as the original price; consequently, when production has ceased to supply the demand, the operator draws upon his storage supply, adding to his original costs the incidental items of expense while in storage.

The length of time that butter and eggs can be held in cold storage is limited to a certain extent, as neither of these commodities can be successfully carried over from one season to another, for the loss in so doing is so great that the operator cannot afford to take chances. Butter put in storage in June must necessarily be of extra quality to hold up until the following January; otherwise, the man who stores is sure to take a loss. Eggs put in storage in April must come out by the following January, and though stored under the very best conditions, will show some deterioration. This the storage man knows and takes into consideration before he begins operations, but here again we find a proposition that is very seldom given any consideration by the general public, namely, that unless the operator can deal through a stabilized market, to be successful in his operations he must outguess the market, and that is gambling. Ordinarily, the food storer is not a food gambler. On the contrary, he prefers to take a reasonable and a legitimate profit out of the goods that he handles instead of reaping to himself immense profits, for as previously stated, such profits upon the part of one means loss to soemone else, and instead of business going on smoothly and regularly, conditions become chaotic.

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## Boston Grocers Charged With Short Weighing

Six hundred and forty-three greater Boston grocers, butchers and peddlers, charged with violations of the laws relative to weight and measures, were assembled in the Auditorium at the State House one afternoon recently by Thure Hanson, State Commissioner of Standards, lectured on honesty, and warned that a repetition of their offenses will land them in trouble.

While this lecture was going on, Commissioner Hanson's agents were obtaining summonses for the appearance in court of 67 retailers who are accused of more flagrant violations. Commissioner Hanson has been conducting a campaign against retailers who have been cheating, consciously or otherwise, in their weights and measures. He found many of them in Boston.

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## Canners' Educational Work

The Educational Committee of the National Canners' Association, composed of Walter J. Sears, chairman, Ohio; H. P. Strasbaugh, Maryland; George G. Bailey, New York; Frank Gerber, Michigan; Richard Dickinson, Illinois; Amos H. Cobb, New York, is making substantial progress in the arrangements for the launching of the Canners' Educational and Publicity Campaign. The Blackman-Ross Agency has been selected and W. H. Fromm, a prominent Wisconsin canner, who has given much study to the canner's problem of distribution and has made several addresses on publicity, has been employed by the association as director of advertising. Mr. Fromm will assume the duties of director of advertising on November 1, 1919.

**HEBE** A Nutritious Food
Sanitarily Produced
Correctly Labeled
Properly Advertised for **Cooking** and **Baking**

***A distinctive product for definite uses***

Hebe is pure skimmed milk evaporated to double strength enriched with cocoanut fat. These are the sole ingredients. They are scientifically combined, creating a food that is balanced—a food that is rich in protein, carbohydrates and fat. Every 100 pounds of Hebe contains the food elements of 210 pounds of pure skimmed milk and 7.8 pounds of refined cocoanut fat.

Hebe is produced in modern, sunshiny condenseries, where complete sanitation is the first concern. These are located in the heart of noted dairying sections. The product is put up in hermetically sealed tins and sterilized, so that it reaches the consumer in the same pure state in which it left the condensery.

Hebe is labeled with the utmost frankness as to its ingredients and uses. The label tells the whole story in letters large and legible. This label has been approved by leading food officials of the country.

Hebe is advertised as it is labeled—honestly and frankly—"A Compound of Evaporated Skimmed Milk and Vegetable Fat." It serves as an auxiliary to the daily milk supply for cooking and baking and with coffee.

Hebe reclaims for human use a portion of the skimmed milk now so largely diverted to animal feeding. It puts this skimmed milk in a form to make its use most desirable for cooking purposes. Thus Hebe enlarges the available food supply—releases for direct feeding the whole milk which would be used for cooking purposes—increases the use of dairy products in the home.

So Hebe, judged by all the standards by which foods should be judged, is a product of which food officials—the guardians of the health of the race, dietitians—teachers of healthful cooking, food chemists and economists who are working for the creation and better distribution of food—can all approve.

We will gladly send upon request a booklet giving the complete story of the dietetic and economic value of the product Hebe.

**The Hebe Company**

**3009 Consumers Bldg.** **Chicago**

# How to Make Good Apple Syrup

We are getting into the pancake season and good syrup will be wanted on the breakfast table, so here is a way to make apple syrup. The recipe and method of operation is described in a communication sent out by the Department of Agriculture.

To make apple syrup add five ounces of powdered calcium carbonate to seven gallons of apple cider. Powdered calcium carbonate (carbonate of lime) or, to give it its common name, precipitated chalk, is a low-priced, harmless chemical available at any drug store. Boil in kettle or vat vigorously for five minutes. Pour the liquid into vessels, preferably glass jars or pitchers, allow it to stand six or eight hours, or until perfectly clear. Pour the clear liquid into a preserving kettle. Do not allow sediment at bottom to enter. Add to the clear liquid one level teaspoonful of carbonate of lime and stir thoroughly. The process is completed by boiling down rapidly to a clear liquid. Use density gauge or candy thermometer and bring it up to 220 degrees F., or, without thermometer, reduce bulk to one-seventh of original volume. To see whether it is cooked enough, test as you would test syrup or candy, by pouring a little of it into cold water. If boiled enough it should have the consistency of maple syrup. It should not be cooked long enough to harden like candy when tested.

When the test shows that the syrup has been cooked enough, pour it into fruit jars, pitchers or other receptacles, and allow it to cool slowly. Slow cooling is important, as otherwise the suspended matter will not settle properly and the syrup will be cloudy. A good way to insure slow cooling is to stand the vessels full of syrup in a bucket or a wash boiler of hot water. They may also be placed in a fireless cooker. The white sediment which settles out during cooling is called "malate of lime" and is a harmless compound of lime with the natural acid of the apple.

When the syrup is cooled, it should be stored in fruit jars or bottles. Place the rubber cap or cork in position and tighten. Then place the bottles or cans of syrup in hot water and sterilize for 12 minutes in hot water or wash boiler outfit, 10 minutes in water-seal outfit, 8 minutes in steam pressure outfit under 5 pounds of steam, or 5 minutes in aluminum pressure cooker under 15 pounds of pressure.

Apple syrup made by this method is a very palatable and high-grade product. It has a flavor much like the thick syrup or jelly which is often formed when apples are baked with a little sugar. As shown by experiments made in the United States Department of Agriculture, this apple syrup can be used in cooking with good results, as well as for table purposes.

# Cities Tackle Food Problems

THAT municipalities are tackling their local food problems in a variety of ways, some of them unusual, is evidenced by reports received by the city marketing division of the Bureau of Markets, United States Department of Agriculture.

From establishing curb markets, remodeling or building retail market houses, efforts of cities have expanded until some are actually selling food supplies, while one city of about 65,000 population is operating a farm and selling produce from it at retail.

### How One City Sells Food

Houston, Texas, which has a municipally-owned retail market house, has taken over three stalls in the building and is handling fruits and vegetables in competition with its tenants. In order to be fair to other retailers it charges itself with all overhead expenses paid by other dealers, including rent, and also pays wages higher than those paid in other stalls. Reports on ten weeks' operation of the city-managed stalls show that it is possible to buy and sell produce in competition with local merchants at both a direct and indirect saving to consumers. The experiment is to be enlarged to include food products other than fruits and vegetables and is said to be already serving as a stabilizing influence on prices in that city market. Competing merchants have become interested in the methods of doing business of the city-operated stalls and appear anxious to try out practices that would enable them to lower their prices.

Allentown, Pa., has gone into farming on a farm acquired for other purposes which, through changes in municipal plans, was lying idle. Under the direction of one of the city aldermen this farm is producing vegetables and selling them at retail in competition with shipped-in produce. The farm also feeds 1,000 head of hogs on city garbage. Local advocates of the plan now propose to include the use of an old brewery as a storage warehouse for potatoes and other products grown by local farmers, so as to lessen the city's dependence on shipped-in products.

Although the Bureau of Markets, through its city marketing division, is keeping in touch with developments in many cities and is compiling information for use in answering inquiries, it states that it would be glad to hear from any cities, not as yet reached by formal inquiries, which are working on local food problems through municipally-owned shops and by other methods differing from those that have been followed in the past. The bureau plans to make available information in regard to the successes and failures of cities in their efforts to solve their food problems in order that municipalities contemplating special action may have the benefit of the experience of communities faced with similar conditions.

Chicago's Most Modern
Fireproof Hotel

Over 1000 rooms. Each room has a bath and running ice water, is completely and luxuriously furnished. Every floor has its own housekeeper—every known facility for your personal comfort.

*Nothing less than your entire satisfaction will satisfy us.*

The Home of the Famous
TERRACE GARDEN
Chicago's Most Beautiful Restaurant
Noted for its perfect cuisine
Entertainment unexcelled
America's Show Place

Morrison Hotel
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*Personal Management*
HARRY C. MOIR

The
Sign of a Better Method

EMCO
EMCO PRODUCTS
STANDARD WIRE END DISHES
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TOOTH PICKS
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ASSORTMENT No. "B" EMCO WIRE END DISHES
8 CARTONS 50 EACH MEDIUM EMCO STANDARD WIRE END DISHES
50 STANDARD WIRE END DISHES EMCO

EMCO Wooden Dishes are kept clean and free from dust contamination up to the instant of use.

They are packed in small tidy units for the convenience of the retailer who is not obliged to expose a quantity of the dishes in order to make use of one.

**Suggest EMCO dishes for bulk foods.
Most sanitary—most serviceable**

ESCANABA MANUFACTURING COMPANY
MANUFACTURERS
Escanaba, Michigan

# Food Notes from Other Countries

## American Pure Food Laws Improve Foreign Product

THE Federal Food and Drugs Act has brought about many changes in methods of manufacturing and labeling foods and drugs, not only in the United States, but in foreign countries as well, say the officials of the Bureau of Chemistry, United States Department of Agriculture, who are charged with the enforcement of that law.

The most recent instance which has come to the notice of the officials is in reference to powdered dried eggs from China. Large quantities of powdered eggs are shipped into the United States from China for use by commercial bakers. These include powdered white of egg, powdered yolk of egg and powdered whole egg. These preparations are made by drying and powdering the eggs as taken from the shells. Egg powders will keep for a long time, can be shipped economically and, when properly prepared from fresh eggs, can be used to take the place of shell eggs in baking. Powdered eggs should never be confused with the so-called "egg substitutes" which contain little or no egg, and which will not serve the purpose of eggs in baking.

### Egg Powder Watched

Examination of the egg powders imported from China showed that they contained zinc, varying from a mere trace to quantities sufficient to require the exclusion of some of the shipments from entry into this country. Investigation developed that the zinc in the egg powder was acquired in the process of manufacture, either from zinc-lined trays or zinc belts used in the drying of the eggs.

As a result of the exclusion of some of the shipments to this country, many manufacturers in China have so changed the process of manufacture as to produce dried eggs, yolk and albumen free from zinc, and the indications are that they will soon be able to supply the demands for these products used in increasing quantities by bakers and manufacturers of bakers' supplies. The Federal Food and Drugs Act gives no authority to the Department of Agriculture to prescribe the methods that must be used in the manufacture of food or drugs either in this or in foreign countries. However, it is sometimes necessary for manufacturers to change their methods of manufacture, as in the instance above noted, in order to bring their finished product within the requirements of the act.

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## Shortage of Food in Hamburg

"The poorer classes of people in Hamburg, Germany, are literally starving to death," says a report of the United States Shipping Board. "Everybody is supposed to subsist on rations, all foodstuffs being issued on cards. The well-to-do, however, are fed at the expense of the poor, due to the fact that there exists a large amount of illicit trafficing in foodstuffs. Restaurants put up meals that compare very favorably with middle-class eating places in the United States, and such a dinner may be had from 20 to 30 marks. This price, naturally, is prohibitive except for the rich, since it means, to the Germans, relatively, paying from $5 to $7.50 for a meal, although to the American, who buys marks with his dollars, the price seems low enough. The German, of course, uses as standard of comparison the former value or purchasing power of the mark. As a rule, knowing nothing of exchange, he is unable to grasp the significance of the present low rate.

"Many restaurants in Hamburg have been closed by the authorities. Farmers are rationed by requiring them to bring to market all except a certain amount of products raised. The shortage in foodstuffs extends to practically every article of common consumption. The anomaly was observed during a sojourn in Hamburg, of seeing 3,000 tons of sugar loaded for shipment to France, while it was almost impossible to obtain sugar at any price in that city."

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## Amended Regulations Governing Importation and Exportation of Wheat Products by Canada

The Canadian Wheat Board has granted permission for the importation and exportation of bread without individual licenses. General permission is also granted for export to the United States without individual licenses of wheat flour, bran and shorts in retail quantities by wagon loads along the frontier.

## Paris Needs Butter

Paris needs 80,000 pounds of butter daily, according to the Commissioner General for Canada in France. Before the war "the Dairymen's Association in Paris, which comprises the butter buyers for Paris, had been getting most of their butter from Siberia, and the balance from Normandy. The supply in Normandy, however, is not at present enough for her own consumption, so that Normandy now imports butter herself. No butter is expected to be imported from Siberia for at least five years.

"The Paris dealers alone require at least 80,000 pounds a day. That is to say, they can struggle along with this, as many people have got used to eating no butter at all, but it has to be used for cooking. They can, therefore, from October 15 for five months following, handle 80,000 pounds per day. The importation into Paris for the three years previous to the war amounted to 117,000 pounds per day."

Both unsalted and salted butter from Canada, sent by parcel post, was well received in Paris. According to the available statistics for the period from April 17 to October 18, 1919, the United States has exported less than 100,000 pounds of butter to France.

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## War and the Dairy Industry

During the World War, American exports of milk products increased considerable more than threefold. In 1914, 70,000,000 lbs. of milk left the United States. In 1919, the total was 2,550,000,000. It was not raw milk, of course, but for the sake of comparison the United States Department of Agriculture has reduced the figures to pounds of milk. Butter and cheese constituted the two items making up the total in 1914. In 1919 there was a big added item of condensed milk—something more than half the total.

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## Exports From New York for Week Ending October 11

All exports were considerably reduced, owing to the strike of longshoremen.

Meats and Meat Products.—During the week 1,120,513 lbs. of lard were shipped to England; 3,844,286 lbs. of dry, salt, and pickled pork

Continued on page 30

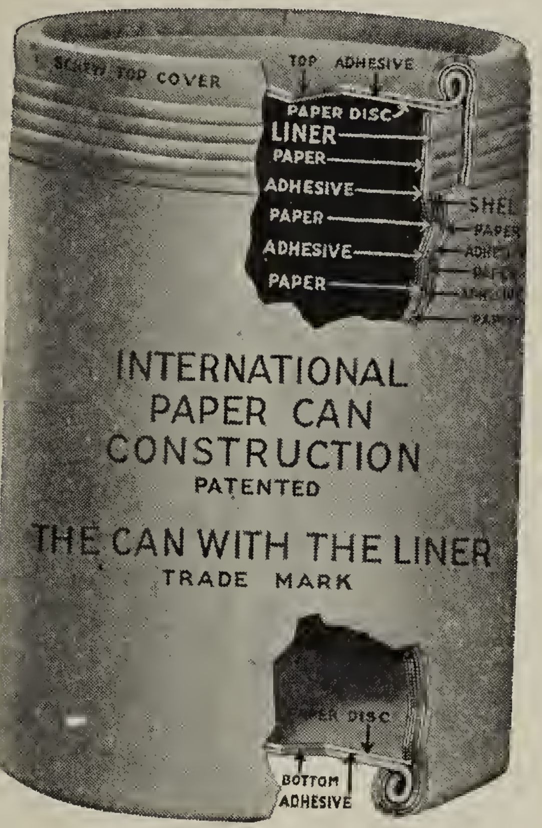
# QUALITY CANS FOR QUALITY BRANDS

If you make a product that is better than the other fellow's, why not Advertise it by packing it in a Better Can?

*One That Has Distinctive Features*

*This is not a spiral wound paper tube can*

It's a real paper can, made for such products as have not been satisfactorily contained in the various makes of spiral wound paper tube cans



*No label needed for sealing or for advertising*

Our screw top makes a perfect seal, and we reproduce your trade mark and other printed matter on the paper shell before it is wound into cylindrical form

We make all of our adhesives and chemical substances with which we treat our cans that makes them impervious to all actions of the contents

Many products now being packed in tin, glass, porcelain, wood, etc., can be satisfactorily contained in our paper cans

*We make both Machinery and Cans*

**INTERNATIONAL PAPER CAN CO.**

**National Life Building, CHICAGO**

## Exports from New York

Continued from page 28

were exported to Italy. Total quantities exported: fresh or frozen beef, 110,025 lbs.; canned or pickled beef, 91,700 lbs.; lamb and mutton, 31,400 lbs.; fresh or frozen pork, 175,498 lbs.; dry, salt, and pickled pork, 4,207,125 lbs.; bacon, hams and shoulders, 2,405,999 lbs.; lard and lard compounds, 2,154,408 lbs.; sausage, 140,525 lbs.; poultry and game, 1,400 lbs.

Dairy Products.—Large quantities of condensed and evaporated milk were exported to the United Kingdom, 5,406,777 lbs. of the former and 1,639,199 lbs. of the latter; 284,030 dozen eggs were shipped to the United Kingdom. On October 7th 121,250 lbs. of condensed milk and 25,700 lbs. of evaporated milk were shipped to Greece; Belgium took 331,715 lbs. and Scandinavia 265,715 lbs. of cheese.

## Stocks of Foodstuffs in the United Kingdom

The British Food Controller, at the request of Parliament, recently compiled statistics of the stocks of foodstuffs on hand in the United Kingdom at the beginning of the war and on July 1 of this year. These stocks are given in the following table:

| Commodity | July 1 1919 Tons | Sept 1 1919 Tons |
|---|---|---|
| Wheat and flour (as grain) | 1,314,000 | 2,684,000 |
| Rice | 115,000 | *85,000 |
| Beef | 20,000 | 24,100 |
| Mutton | 29,900 | 36,000 |
| Rabbits, poultry and game | 7,200 | 5,600 |
| Bacon and hams | 27,700 | 12,000 |
| Other meat | 46,600 | 10,400 |
| Lard | 10,200 | 8,200 |
| Eggs | 4,100 | 5,500 |
| Butter | 18,800 | 16,900 |
| Margarine | 3,100 | 2,800 |
| Cheese | 7,600 | 12,900 |
| Sugar | 404,000 | 131,000 |
| Tea | 78,500 | 36,200 |
| Coffee | 49,300 | 20,800 |
| Cocoa | 67,400 | 14,400 |

These figures show that with the exception of wheat and flour, beef, mutton, eggs and cheese, there was a greater supply available on July 1 of this year than on September 1, 1914. Mr. Roberts in his reply to Parliament made the following statement:

"Returns of stocks were not collected prior to the outbreak of war. The earliest figures available are those for September 1, 1914. The figures for wheat and flour include stocks in port granaries and warehouses, inland warehouses, mills and bakers' shops, and estimated farm stocks; those for rice include stocks in port granaries and warehouses and in mills; those for meat and provisions include stocks at ports, in cold stores, and in importers' and the larger wholesalers' warehouses.

# Imported Foods and Drugs Inspected

LARGER quantities and a greater variety of foods are being imported from foreign countries each month, although pre-war volumes have not yet been reached. This statement is made by officials of the Bureau of Chemistry, United States Department of Agriculture, who are charged with the enforcement of the Federal Food and Drugs Act.

The importation of both foods and drugs was affected greatly by the war, but the interruption to the importation of crude drugs was less marked than in the case of pharmaceuticals and foods, according to the officials. An inspection of all imported food and drug products is maintained by the Bureau of Chemistry, in order to insure that such products coming from foreign countries are not misbranded or adulterated under the terms of the Federal Food and Drugs Act.

### Analysis Often Necessary

Laboratories for the examination of samples from shipments of imported food and drugs are maintained by the Bureau of Chemistry at its branch stations in Boston, New York, Philadelphia, Savannah, New Orleans, San Francisco, Seattle, San Juan, Porto Rico, and at some other cities where the importations are smaller in volume. Invoices of all food and drug shipments coming into the United States are scrutinized by food and drug officials, and all shipments which there is reason to believe may be misbranded or adulterated are examined. In many instances chemical analysis of samples is necessary to determine whether or not a given shipment is in accordance with the provisions of the law. In other instances a physic examination by a specialist is sufficient.

The Federal Food and Drugs Act provides that if any article of food or drugs offered to be imported into the United States is adulterated or misbranded within the meaning of that act, or is otherwise dangerous to the health of the people of the United States, or is of a kind forbidden entry into, or forbidden to be sold, or restricted for sale in the country in which it is made or from which it is exported, or is otherwise falsely labeled in any respect, such article shall be refused admission. The Secretary of the Treasury is authorized by the act to refuse delivery to the consignee of such articles and to cause the destruction of any goods refused delivery which shall not be exported. However, when importers through no apparent fault of their own receive shipments of foods or drugs which are adulterated or misbranded, but not grossly, it is customary to release the goods after relabeling, sorting or cleaning, if a product which complies with the law can thus be obtained.

### Many Foods Now Coming In

Certain crude drugs and some foods, such as coffee, tea, spices, olive oil, figs, etc., are either not produced at all in the United States or are produced in too small quantities to meet the demand. Other foods are imported to meet the demands of that portion of the population born in foreign countries who desire to obtain the same kind of food to which they were accustomed before coming to this country. There are some foods produced or manufactured in other countries, which have established a world-wide reputation for excellence or some peculiarity of flavor. Although domestic articles of the same kind may be available in abundance, some prefer to buy the foreign article because of an assumed or actual superiority of appearance, flavor, or quality. To cognacs and champagnes of France are articles of this class which can no longer be imported; but certain foreign ginger ales, mineral waters, jellies, sardines, cheeses, etc., continue to be in demand.

Practically all the different classes of foods imported previous to the war, with the exception of alcoholic beverages, are now coming in, say the officials, although in the case of some foods in not as large quantities. War embargoes on some foods are still in effect in a few countries. For instance, olive oil can not as yet be shipped from Italy. Olive oil, however, is being imported from France and Spain.

The officials of the Treasury Department cooperate with those of the Bureau of Chemistry, United States Department of Agriculture, in enforcing the provisions of the Federal Food and Drugs Act relating to imported foods and drugs.

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In a certain plant the technical and trade magazines which are received are first read by the engineers in the office. They are then placed in a box made especially for this purpose, at the employees' entrance. Any worker may take one at a time home, and after reading it, return it to the box, so that other employees may read it. This scheme is worthy of more general application.

# Few Gifts of Nature Have Proved More Useful to Mankind Than Corn— King of American Cereals

**CORN STARCH**—edible, laundry, or lump, has grown to be a household necessity.

**CORN OIL**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. **Corn Oil** has made a distinct place in the home.

**CORN SUGAR**—has its place with the ice-cream manufacturer, the physician and the baker.

**CORN SYRUP**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

## American Manufacturers' Association of Products from Corn

**208 South La Salle Street** **CHICAGO, ILLINOIS**

MEMBERS:

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J. C. Hubinger Bros. Co., Keokuk, Iowa
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A. E. Staley Mfg. Company, Decatur, Ill.
Union Starch & Refining Co., Edinburg, Ind.

# Mushrooms Dainty But Dangerous

SOME mushrooms are dangerous dainties. This fact has been forcibly brought to mind by the reporting of several deaths from mushrooms in Chicago during the past few days, is the word sent out by the Chicago Department of Health.

According to good authorities there are now more than 700 species of mushrooms which have been tested and proven to be edible. But the novice or those not thoroughly familiar with the different edible species should be extremely cautious in trying new species, or any form of toadstool with which they are not familiar.

Gibson in his book, "Our Edible Toadstools and Mushrooms and How to Distinguish Them," calls attention to the fact that there are many popular rules for distinguishing between the poisonous and non-poisonous varieties and which, in spite of their popularity, from a scientific standpoint, have been found to be practically worthless. For example, not all mushrooms that have a pleasant taste and odor are edible. Not all mushrooms that can be peeled are edible. Not all mushrooms having pink gills turning to brown in the older specimens are edible. Neither are all mushrooms poisonous that will discolor a silver spoon in boiling; or that have stems at their base; or that are found growing in dark, damp places containing milky juice; or those that bite the tongue or have a bitter and nauseating taste. The list of popular signs is much larger than here given, but according to Gibson are unreliable and in his judgment, "It is a seven days' wonder that the grewsome toadstool epitaph is not more frequent."

The same authority, however, gives the following tests which he regards as being reliable:

1. Avoid every mushroom having a cup or suggestion of a cup at the base. The distinct, fatal poisons are thus excluded.
2. Exclude those having an unpleasant odor; a peppery, bitter or other unpalatable flavor or tough consistency.
3. Exclude those infested with worms or any defects or decay.
4. In testing others which will pass the above probation, let the specimen be kept by itself, not in contact with or enclosed in the same basket with other species.

The following advice is also given by the same authority as to testing new or unfamiliar varieties: "Each unfamiliar kind should be subjected to rigid examination first by smell and obnoxious ones discarded. Then by taste, beginning by a mere nibble, the size of a pea, and gentle mastication, being careful to swallow no saliva and finally expelling all from the mouth. If no noticeable results follow, the next trial with the interval of a day with the same quantity may permit of the swallowing of a little of the juice, the fragments of the fungus expelled as before. If no unpleasantness follows for twenty-four hours the third trial may permit of the entire fragments being swallowed; all of these experiments should be made on an empty stomach. If this introduction of the actual substance of the fungus into the stomach is succeeded by no disturbance, in twenty-four hours a larger piece, the size of a hazel nut, may be taken and thus the amount gradually increased day by day until the demonstration of edibility or at least harmlessness is complete and the species can thus be admitted into the safe list.

It has been abundantly demonstrated that the indiscriminate collection of mushrooms is attended with such dangers that no beginner should be encouraged to eat them upon his own determination. It is best to consult someone who knows; or if in doubt, to send the specimens away for determination by experts as to their edibility.

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## British Prejudice Against Frozen Meat Compels Reduction of Prices

According to a report of Mr. Turner Wright, of this Bureau, the prejudice against frozen meat exists to such an extent in the United Kingdom that the British food controller was compelled to reduce the prices of imported meat considerably below those for the home-dressed products.

## Control Prices of Eggs in United Kingdom

According to a cablegram from the agricultural trade commissioner at London, dated October 1, 1919, the British food controller resumed the control of eggs and has set the following maximum prices, per dozen: fresh eggs, domestic or imported, wholesale, $1.04; retail, $1.14; preserved, wholesale, 83 cents; retail, 93 cents; small eggs, wholesale, 56 cents; retail, 62 cents.

## Cold-Pack Method Not to Blame for Detroit Deaths

DECAYED products, not the cold-pack method of canning, are responsible for the recent deaths of five people in Detroit who ate ripe olives, say scientists in the United States Department of Agriculture. They also say that if people would throw away or refuse to eat food that smells spoiled they would be insured against poisoning by the *Bacillus botulinus,* the bug that has come into the limelight recently through its nefarious behavior. This organism when present in canned food is the cause of active decay.

It is poor economy to eat food which has begun to spoil or rot. The person who does runs the risk of death. In every case observed of botulinus poisoning, the people who served the food knew that it had an unpleasant stench—a smell of decay or putrefaction, and it should never have been put on the table.

Ripe olives, which the Detroit health commissioner claims caused the death of the five in Detroit, are not canned by the cold-pack method. The process usually employed to preserve olives is to dip them several times in lye, rinse them in fresh water and then put them in a weak brine. No heat is used and the brine is not strong enough to prevent toxin formation.

Successful canning, so far as the danger from poisoning by the *Bacillus botulinus* is involved, depends not so much on the method selected as on the rejection of infected material at the start. Dirty, wilted and partly rotted food carries multitudes more of organisms into the canning process than fresh, sound, clean fruit and vegetables. Dirty tables, dirty jars and lids, sewage-polluted water and flies are sources of contamination which should be eliminated.

Suspected foodstuff should not even be tasted, for death has occurred after tasting two teaspoons of spoiled product which contained the *Bacillus botulinus.* Feeding suspected food to domestic animals without safeguards is undesirable, for some of them are very susceptible to the toxin.

No person should take the responsibility of serving other people any food product which has commenced to decompose. Let your nose be your guide and discard food with a putrid odor, warn the expert food chemists of the Department of Agriculture.

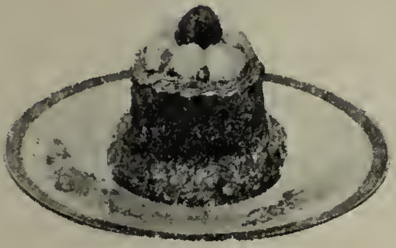
# The Mince Meat with the real "home made" flavor!

**Thanksgiving Surprises**

Bake a plain white cake in a square tin. Cut in circles, cover with a soft icing and finish with a thick layer of Libby's Mince Meat. Decorate with blanched almonds

**Mince Pie**

Libby's Mince Meat is so delightfully rich in itself that any plain pastry may be used for the Thanksgiving pie. Line pie plate with pastry, fill generously with Libby's Mince Meat, moisten outer rim of crust with ice water, then fit on upper crust, pressing crusts together lightly to keep in the juice. Have oven hot when pie is put in, after ten minutes reduce heat and cook twenty minutes longer.



**Thanksgiving Puddings**

Fill oiled custard cups with alternate layers of cake or bread crumbs and Libby's Mince Meat. Beat two eggs with ⅓ cup sugar, juice of one lemon and ½ cup water. Pour over mince meat and crumbs and bake in a slow oven until firm. Serve cold with hard sauce and decorate with whipped cream and candied cherries. Serves four

HERE'S a real Thanksgiving treat—a mince meat with a "home made" flavor!

It's a Libby product that lives up to all the proud traditions of the name, for only the best that money can buy goes into Libby's Mince Meat—the juiciest apples, plump raisins and currants, tender citron, flaky suet, young beef and the most fragrant of spices!

It's so good you'll want it in all your desserts—and it does make wonderfuly good puddings, cakes and Banbury tarts. Get your holiday supply from your grocer today—in the jar or in bulk from the sanitary container—it's all the same.

**Libby, McNeill & Libby, 64 Welfare Bldg., Chicago**

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*45 E. Front St., Toronto, Ont., Can.*

Libby's

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### Standard Ice Cream

Continued from page 21

tion will co-operate with all the food officials in seeing that the sanitary conditions are as they should be in each and every state. I think the food officials who have a sanitary law feel as I do, and those who haven't, wish they had, and I hope your association will recommend to any state association in a state that has no sanitary law that they urge the commissioner strive to have such a state law enacted, and give him your support. Some of you gentlemen justly are taking a great pride in your model plants, and you have seen the effect upon the help; how the efforts for cleanliness have spread. It is a great pleasure to be connected with an ice cream factory that is of the very highest type, and I know that you take pleasure in belonging to an organization that stands for these things. I take pleasure in acknowledging my gratitude to the Illinois association for the support it has given this state in efforts along this line. I believe the large consumption of their product in this state is the public's testimonial to their efforts.

Never take a chance with a product like ice cream. Whether it is eaten at home or in the ice cream parlor, the patron has no opportunity of flavoring it, or improving it, as may be done with many products taken into the home. It is eaten as delivered. Make it so its popularity will be ever increasing because of universal knowledge of dependable purity.

### OLEO SALES

In June and July of this year, oleo oil, oleomargarine and lard compounds in the following quantities were exported to Germany through New York, Massachusetts and Maryland customs districts, to wit.: oleo oil, 767,995 lbs. (value $244,234) in June; olemargarine, 152,050 lbs. (value $49,414) in July; lard compounds, 242,025 lbs. (value $110,609) in July.

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### Municipal Food Control

Continued from page 18

there is no machinery for enforcing a law for the purity of foods. Fox, in his study of Public Health Administration in Baltimore, calls particular attention to this point. Lederle, in a paper previously referred to, points out that, in New York City, the inspection and control of foods locally produced and sold by the city department of health leaves the state departments free to spend the greater part of their energies outside the metropolis.

A comprehensive local program of food control will, therefore, include the following provisions: 1. Adequate local ordinances controlling the adulteration or misbranding of foods or full authority to use existing state laws. 2. Adequate legal provision for the protection of foodstuffs from contamination. 3. Adequate laws governing the sanitation of foods in their production, distribution and sale. 4. Close supervision over the health of all food handlers. 5. Ample appropriations for the proper execution of the above laws. 6. Efficient, well-trained subordinates to make such laws effective. 7. A competent, directive head for these activities. 8. A well-defined program of action. 9. Full co-operation with federal and state authorities.

McCombs, in an extremely interesting paper on protection against food contamination, has pointed out very clearly the value and need of some of the above local activities. Such a program also gives each agency a definite field of action. It is the duty of the federal authorities to control foods in their interstate movements. It is the duty of the state to control foods produced in the state and their intrastate movements. It is the responsibility of the municipality to complete the chain of protection by controlling the final transfer to the ultimate consumer. Thus there is no overlapping of effort; each agency has a separate and distinct field of action; they are coordinated and each is an integral part of our complex modern civilization.

When we consider the field of drug control, similar considerations apply. Here there is a very real need for the development of municipal activity. Today there are not half a dozen cities in this country making any efforts in this direction. What state drug control official will affirm that he is able to control adequately the distribution of the many U. S. P. and N. F. preparations in a large city within his state, or the accuracy of

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compounded prescriptions? Such work, in our larger municipalities, can be handled more effectively by the local department. In this field also, the same clear line of demarcation between federal, state and municipal control can be drawn.

A program such as the above makes for efficiency and the fulfilment of our ideals as food and drug control officials. As Assistant Surgeon General Rucker of the U. S. Public Health Service has so aptly said, "The watchword of the age is efficiency—the doing away with haphazard methods and the substitution therefor of the methods of precision. Efficiency consists in the accomplishment of a given task in the minimum of time and with the minimum of effort. To accomplish this it is necessary that one knows exactly what he wants to do and that he have the power with which to do it."

### Conclusions

1. Food and drug control, in its local application, is a properly exercised function of a municipality.
2. Such local control is logically and properly vested in the department of health.
3. The local agency is best suited and equipped to give the citizens of a municipality that degree of protection to which they are entitled.
4. The municipal authorities are the last protective barrier before the food and drug products reach the ultimate consumer.
5. Full co-operation between federal, state and municipal authorities in the control of foods and drugs is essential.
6. A well-developed, harmonious plan of action involving these three agencies is a requisite to securing proper teamplay. As Vincent so admirably stated in a trenchant address on "Teamplay in Public Health," "The essential thing in teamplay is that each participant shall not lose his identity but shall subordinate his individual purposes to the common interest, and shall do his part loyally in accordance with a plan which is accepted by all and which gives unity and efficiency to the combined endeavor."

---

## Europe and Dairying

From efforts now being made in Europe to re-establish the dairy industry on a pre-war basis, United States Department of Agriculture officials predict that within two years those countries may be supplied from sources upon which they depended before the war.

During the past few years the United States has shipped to Europe vast quantities of dairy products. The demand created a drain on the American dairy industry such as it had never known. Now it is predicted that within a few years Europe will not only have regained her former prestige in dairy products, but may even compete in this country with native products.

---

## Evaporated Milk Not in Favor in the United Kingdom

The American Consul General at London reports that evaporated milk is not in favor in the United Kingdom, owing to its lack of keeping qualities after the container has been opened. Exporters of condensed and evaporated milk who may expect an increased trade in the United Kingdom, owing to the very serious shortage of natural milk, should bear this in mind. The retail price of milk has been fixed by the British Food Controller at $0.24 per quart for the winter months.

---

The taking of the fourteenth census will begin on January 2, 1920, and it is planned to complete the gathering of both population and agricultural figures by February 1.

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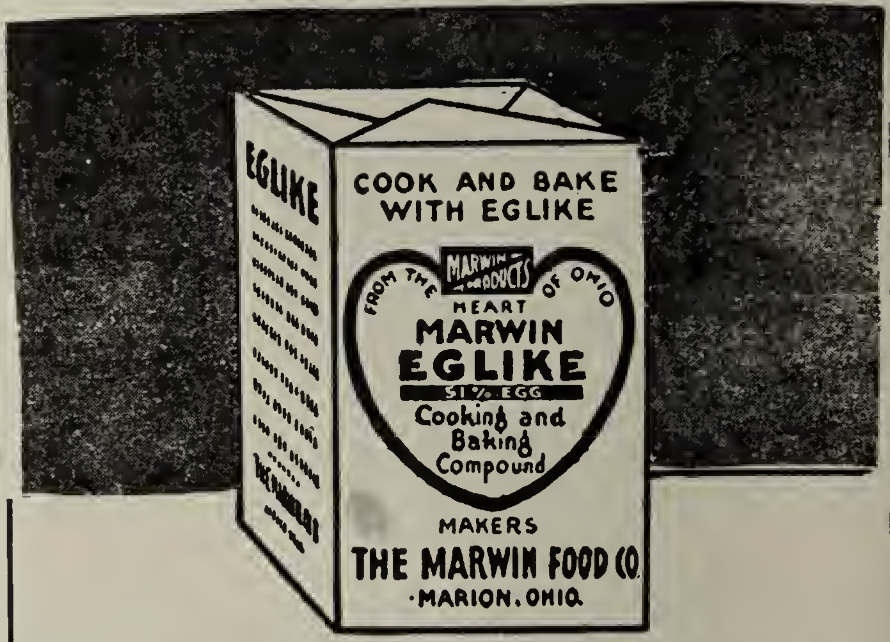

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## Meat Inspection

Continued from page 15

of the City and County of San Francisco, or the meat inspection brand or other official mark of identification of Boards of Health of the State of California whose meat inspection standard is equal to and recognized by the San Francisco Board of Health, or the meat inspection brand or other mark of identification of the United States Department of Agriculture. If any carcass of any animal hereinbefore named, or part thereof, is found, offered for sale or exposed within the City and County of San Francisco, which does not bear any of the meat inspection brands or marks recognized by the Board of Health of the City and County of San Francisco, said Board of Health shall take possession of and destroy such meat.

Sec. 2. No person, firm, or corporation shall ship, send, bring or cause to be brought into the City and County of San Francisco, the meat of any cattle, sheep, lamb, goat or swine, which does not bear the meat inspection brand or other mark of identification recognized by the Board of Health of the City and County of San Francisco.

Sec. 3. The carcasses of calves in good healthy condition and over four weeks of age may be brought into the City and County of San Francisco, and each of said carcasses of such calves must be inspected and stamped or marked by the San Francisco Board of Health at the point of arrival of said carcasses of such calves in the City and County of San Francisco.

Sec. 4. An ante-mortem examination shall be made under the direction of the Board of Health of the City and County of San Francisco of all cattle, sheep, swine or goats about to be slaughtered before they shall be allowed to enter the slaughtering pen. All animals showing symptoms of or suspected of being affected with any disease or condition which under the regulations of the Board of Health of the City and County of San Francisco would probably cause their condemnation in whole or in part when slaughtered, shall be marked by affixing to the animal a metal tag bearing the words: "San Francisco Board of Health Suspect." All such animals shall be slaughtered separately.

Sec. 5. A careful post-mortem inspection under the direction of the Board of Health of the City and County of San Francisco must be made of all animals herein named at the time when slaughtered in the City and County of San Francisco. The head, tongue, tail, thymus gland and all viscera of each animal shall be retained in such a manner as to preserve their identity, until after the post-mortem examination has been completed, in order that the parts so retained may be identified in cases of condemned carcasses. Suitable racks or metal receptacles shall be provided in and by each slaughtering establishment for retaining said parts.

Sec. 6. All carcasses, meats or meat food products which are unsound, unhealthful, unwholesome or otherwise unfit for food, shall be stamped or otherwise marked by the Board of Health of the City and County of San Francisco, "San Francisco Board of Health Inspected and Condemned," and shall be destroyed.

Sec. 7. All meats or meat food products offered for sale in the City and County of San Francisco shall be subject to reinspection and condemnation at any and all times by the Board of Health of the City and County of San Francisco.

Sec. 8. The Board of Health of the City and County of San Francisco is hereby authorized and directed to adopt rules and regulations governing the sanitation of slaughter houses and establishments, where meat food products are sold or manufactured, the inspection of meats and the ultimate disposal of condemned meats, in addition to the provisions of this ordinance, as will enable the said Board of Health to enforce and carry out the meaning and intent of this ordinance. The standard of meat inspection shall be that adopted by the United States Department of Agriculture.

Sec. 9. It shall be unlawful and a violation of this ordinance for any person, firm or corporation, or officer or agent, or employe thereof, to forge, counterfeit, simulate or falsely represent, or without authority to use or detach, or knowingly or wrongfully, alter, deface or destroy any of the stamps or marks or brands or tags, recognized by the Board of Health of the City and County of San Francisco, on any cattle, calf, sheep, lamb, goat or swine, or any carcass, or on any part or parts of any carcass or carcasses of any animal named in Sections 1, 2 and 3 of this ordinance.

Sec. 10. Any person, firm or corporation, or other agents, violating any of the provisions of this ordinance, or failing to comply with any direction or order of the Board of Health of the City and County of San Francisco given pursuant to the provisions of this ordinance by the Health Officer, or any other agent of said Board of Health, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not less than fifty ($50) dollars, nor more than five hundred ($500) dollars, or by imprisonment in the County Jail for a period of not less than ten (10) days nor more than three (3) months, or by both such fine and imprisonment.

Sec. 11. Each day the violation of this ordinance or the failure to comply with the directions of the Board of Health of the City and County of San Francisco given in accordance with this ordinance, shall continue, shall constitute a new and separate offense, and be punishable accordingly as herein provided.

Continued on page 41

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### Meat Inspection

Continued from page 39

Sec. 12. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

Sec. 13. This ordinance shall take effect immediately.

This ordinance is modeled after the Federal Meat Inspection Law and adopts the standards of the federal meat inspection, so far as they are applicable. It provides that no meat shall be allowed to be sold in the City or County of San Francisco unless it bears an identification mark of a board of health whose meat inspection standard is equal to a standard adopted by the ordinance. The ordinance makes both post-mortem and ante-mortem inspection compulsory, and it confers the power upon the City Board of Health to make necessary regulations for giving effect to its provisions. The regulations which have been adopted by the San Francisco Board of Health conform to those which have been adopted by the United States Department of Agriculture. The power conferred to make regulations leaves sufficient latitude to provide requirements which will meet the progress of science and new developments in the meat industry.

San Francisco is not the only city which has effective municipal meat inspection. In New York City and in Philadelphia local meat inspection is quite thorough and efficient. Among the smaller cities a notable example of accomplishment in meat inspection is Columbus, Georgia. The record of our American cities as a whole, however, in this respect, cannot be commended, and there is room to perform a valuable public service by arousing public sentiment to secure the enactment generally of municipal ordinances similar to the San Francisco ordinance.

The enactment of appropriate ordinances alone will not suffice. To bring about substantial improvement, adequate funds must be provided for administration, the service must be divorced from politics, and trained men must be employed who can devote their entire time to the work of meat inspection. The compensation of employes should not be made to depend upon fees, nor should they be permitted to collect fees. The expense should be borne by the community as a whole, and if a town or city is unable to bear it alone, the expense might be defrayed by two or more jointly, or by a county.

The adoption of ordinances containing the requirements of the Federal Meat Inspection Law, so far as applicable, with proper provisions for enforcement, is urged as an immediate and pressing public necessity, to make safe for human consumption the meat and meat food products of the 30,000,000 or more head of cattle, sheep, swine and goats against which our municipalities, with comparatively few exceptions, now afford no satisfactory protection.

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THE AMERICAN FOOD JOURNAL

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Wm. G. Davies, Editor

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# *The Sign of a Better Method*

Suggest to the Food Retailer that

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# ON TOP

## *Right where it belongs in the*

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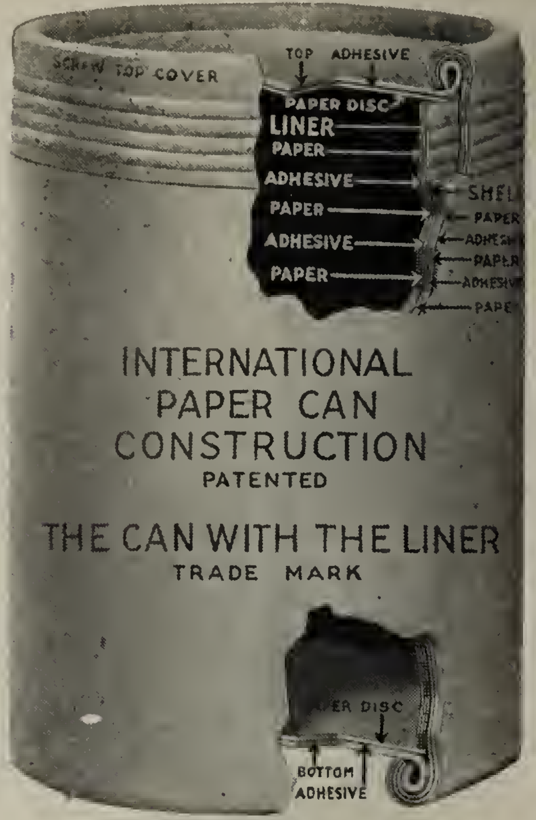

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**National Life Building, CHICAGO**

# SOME FACTS and OPINIONS

Editorials About Questions Now in the Foreground

## The Message of Christmas

*"And suddenly there was with the angel a multitude of the heavenly host praising God, and saying, 'Glory to God in the highest, and on earth peace, good will toward men.'"*

The story is all there,—the story of a world ruled by the blood and iron of selfish forces and of the ceaseless longing for peace and happiness which was answered that night by the song of the angels.

In the twenty centuries that have rolled by since the birth of Christ and the singing of the heavenly anthem, myriads of songs, stories and poems have been written and given to the world but none have possessed the beauty, none have held the comfort and, for these reasons, none have survived as has the old song which was sung to the shepherds as they watched their flocks by night.

Each year, as the Christmastide comes around we listen again to the words that have spelled *Hope* to a world drenched with the blood of warfare and strife and poisoned with hatred and passion. Each year we celebrate the festival; believer and unbeliever; Gentile and Jew; Catholic and Protestant; and whether the celebration takes the form of sordid feasting and revelry or solemn religious observance it is always expressive of the deep seated desire of man for peace and happiness.

This year we look back upon four years of bloodshed such as the world never before saw, followed by a year of industrial disturbances more widespread than in any period of our history. But from the great war comes the dream of universal peace, clearly visioned, more possible of fulfillment now than at any other period, and in the peaceful settlements of strikes and labor disturbances we glimpse the promise of universal understanding and happiness.

It has taken two thousand years of strife and suffering to give mankind a clear vision and the courage to demand peace. And now,—just a little more understanding between nation and nation; just a little more patience between class and class and again the world will hear the old song which this time will tell of the promise fulfilled of "Peace on earth, good will towards men."

## Chasing Fallacies

IN view of the fact that for many years, during the earlier period of the development of the food industry in this country, many manufacturers and producers of food products were not above deceiving the public as to the ingredients and character of the goods used in the manufacture of their product, it is not surprising that the public having become aware of these practices, should still look with suspicion on all products of a similar nature even after the fault has been corrected.

At a recent canners' convention it was announced that a large sum of money had been appropriated by the canners to fight the fallacious belief held by many people that canned foods are dangerous; that they are uneconomical and that much of the food value of the canned article is lost in the process of canning.

It was freely admitted by speakers at the convention that much of this belief was the result of careless canning and deceptive practices on the part of the early canners.

That canning is now one of the most carefully watched over methods of preparing foods for the consumer; that indeed canned foods are among the safest of our foods, are facts that are being vouched for by many of the most eminent scientists and by the United States Government. The canner who believed that he could put anything into his cans and label it "Pure Food" has disappeared. The canners themselves have established an inspection system that is more rigid than even the government demands.

The old theory that every time you ate food that had been canned in a commercial canning factory, you were flirting with ptomaine poisoning, has been exploded by Dr. Rosenau of Harvard University, who has demonstrated that there really is no such thing as ptomaine poison in canned foods.

That it is costing the modern, conscientious canner a lot of money to overcome the effects of the sins of his ancestors should be a warning to the food producer who has not yet become thoroughly convinced that the reward of virtue is not a matter of the other world but is to be had right here.

The readiness of the canners to spend this money to show the public how good their products are and the fact that they are opening their plants to the inspection of any who care to visit them, are evidences that they are in thorough accord with the highest ideals in food production.

## Questioning The Vitamines

THAT the last word has not been spoken or written regarding the vitamines, the elements in food which are essential to growth and which protect humanity against such diseases as pelagra, beri-beri and scurvy, is becoming more and more evident each day. While Dr. McCollum of Johns Hopkins has made remarkable discoveries regarding these essentials, it is very apparent that his conclusions are not accepted fully by many other scientists.

Dr. Williams of Chicago University has recently reported a series of experiments in which he caused a single cell of yeast to multiply by the use of the so-called fat soluable vitamine and water soluable vitamine. His experiments seem to indicate that the so-called Fat Soluable is less important as a growth factor than the so-called Water Soluable as the former caused the single cell to multiply less than did the latter.

If Dr. Williams' theory is definitely proven it will indicate that too much importance is given to the growth promoting properties in the butter fat and not enough importance is being given to the growth promoting properties in the milk which is left after the butter fat is taken off.

The definite establishment of the truth of this theory would tend to call attention more sharply to the terrible waste of dairy products which is being permitted to go on year after year. About thirty billion pounds of skimmed milk is being fed to stock or wasted each year because its importance as a human food has not been emphasized enough. In bulk this amounts to about a third of the entire output of human food by the dairies.

Skimmed milk contains practically all of the proteins, the carbohydrates and the mineral salts of the whole milk. In addition it contains practically all of the Water Soluable vitamines which do not leave the milk when the fat is skimmed off.

When skimmed milk is fed to animals the human race loses an immense quantity of human food because the animal, on being killed for its meat, returns to humanity only about one-third to one-half of the original food value which was contained in the skimmed milk fed to it. The rest is used up by the animal in the mere process of living.

Thus it will be seen that even if the Fat Soluable is given the credit for being the principal growth promoting property the fact that the skimmed milk contains the proteins, carbohydrates and mineral salts which are essential to the human diet and the fact that when a given quantity of milk is skimmed the fat carries off only a half of the Fat Soluable, the balance remaining in the skimmed milk as Dr. McCollum teaches us, the skimmed mlk becomes a most valuable human food by itself,—more valuable because better balanced than the cream or fat of milk.

If, however, the water soluable is found to be the important growth promoting element then it will be readily seen that the human race is taking for its own direct use only the lesser valuable portion of the milk which is devoted to butter making and feeding to the animals the more important portion only a part of the value of which comes back in meat foods.

In either case there is an opportunity for an immense saving to humanity of the most valuable of foods by a change in our present dairying system to provide for the skimmed milk being used directly as a human food or for less butter making and an increased use of whole milk.

## Child Welfare and Economics

IN almost every great business house there is continually being voiced by the heads of departments the complaint over the difficulty of getting employes who will do their work efficiently, who will think about their job and who will be far sighted enough to understand the common interest of employer and employe.

Of course much of the difficulty is due to the poor education of many of the workers, an education which has tended to cram facts into the brain instead of stimulating the brain to hunt up the facts. More of it is due to the system of operating the business house or factory which develops in the worker the idea that he must ever be an antagonist of his employer. But after allowance is made for these and other long recognized causes, we are learning that a vast proportion of the poor workers of today were the underfed, improperly fed and poorly nurtured children of yesterday.

Children who are suffering from mal-nutrition are found not only in the poorer districts but in the families of the well-to-do as well. Young men and young women who are at the age where independent thinking and action is expected and who seem incapable of fulfilling this expectation, are just as often the young men and women who have been reared amidst plenty as those who have come from homes of poverty. Criminals and moral weaklings come from prosperous homes as well as the homes of the poor and, as Lincoln Steffens put it, many of these are merely "too tired" to be good. That is, they lack the vitality which is necessary to a continued effort to keep them straight morally or make them successful in life.

Science is just beginning to teach us how a proper diet in childhood would have developed a good man where there is now a bad man; an efficient worker where there is now a slip-shod performer; a thinker instead of a thoughtless plodder.

The change which a proper diet will work in a human being is of course more apparent when the experiment is tried on a child who has not yet arrived at full growth. It has been demonstrated over and over again in our schools that many so called backward children who seem to be incapable of keeping up in class with other children of their own age, are changed from dullards to bright students after a few months of following a scientifically correct diet in which the foods containing the elements of mental and physical growth are included.

Although the business men of the country who hire large numbers of employes are the constant complainers of the small proportion of capable people, the business men of the country are almost the last ones to see the importance of child welfare work and give it their aid. To the women and a few scientists of the sterner sex goes practically all of the credit for the advances that have been made along this line.

It sounds sordid to say that children should be properly fed so that they will make good workers later in life. While that is true the proposition is better stated in another way. Children should be properly fed and cared for so that they will make capable men and women and capable men and women are capable workers, the kind that think and that develop from laborers to bosses; from clerks to superintendents.

While it is true that the women are the best guardians of the children it is also true that unless the men of our country give more thought and more support to the plans for the development of child welfare work, the women alone will not be able to make as rapid progress as they should and we will continue to have too many weaklings and incompetents among the young men and young women who have arrived at the age where independence of thought and action is expected. Child welfare work is the best insurance of economic welfare. It is more important than the teaching of the three Rs. It is the very foundation stone of all future development. Efficiency systems cannot overcome the effects of improper nourishment and as long as the child welfare is not made an important part of every school system we will continue to have men and women who do not accomplish because they are incapable of accomplishment.

# Two Versions of the Prevailing Shortage of Sugar

*The shortage of sugar is attracting the attention of rich and poor alike.*

*In this article the Chicago Bureau of Foods and Markets takes issue with the sugar refineries on the matter of profiteering. Both sides of the argument are given.*

THE war is a year behind us. New crops of all kinds of commodities have been planted and harvested since the armistice was signed and now, at a time that we looked forward as to a time of greater plenty, America is facing the greatest sugar shortage—at least as far as the general consumer is concerned—that it has ever known. There was no time during the war that the sugar bowl had to be so carefully guarded because of the few precious grains of sweetness that it may possess, as now. It is not so much a question of price as a problem of how to get enough sugar regardless of price. The retail grocers, if they have any, have so little that they are forced to dole it out to their customers in half pound sacks. Many times the customers ask for sugar and can get none at all.

### Explanations Demanded

It is this condition that is causing the people to ask for an explanation. The war has been won; practically all of the soldiers are home and back at their old or other jobs and the promptings of patriotism no longer curb the tongues of our millions of citizens, all of whom, in spirit at least, "are from Missouri" and want to be shown.

So explanations are being demanded and answers, more or less muddled with politics, are being given.

Two answers which seem to be clearer and more comprehensive than any of the others have been given, deserve careful attention. One comes from Boston and appeared in the Boston Transcript. It is an analysis of the sugar situation prepared by Truman G. Palmer, executive secretary of the United Sugar Manufacturers' Association. In his article the writer places the responsibility for the conditions on the changing appetite of our people caused by the war and prohibition, which, it is said, has caused the people of this country to use more sugar per capita than ever before. It charges that the administration failed to act in the matter of continuing the Sugar Equalization Corporation in power at the time when the Cuban crop could have been secured at a low figure (comparatively) and thus assure this country of sufficient sugar at reasonable prices during the coming year and it absolves the sugar refiners in this country from the charge of profiteering.

The Chicago report comes from the newly created Bureau of Foods and Markets of that city. In this report it is asserted that there have been excessive profits made by the producers and refiners of sugar; that the methods adopted by the government in fixing the retail price of sugar by limiting the profit allowed to the retailer, and wholesaler selling to the retailer, has permitted the major portion of our sugar supply (at least in Chicago) to go to the confectioners and soft drink manufacturers leaving the ordinary consumer an insufficient amount to meet his needs. It also charges that the administration failed to act in the matter of extending the life of the Sugar Equalization Corporation when that body wished to protect America's sugar supply by buying the Cuban crop and it calls upon the administration to lift the restrictions on the price of sugar and permit a free market.

### Sugar Man's Statement

The following excerpts are from the statement issued by Truman G. Palmer.

A somewhat peculiar condition exists in the United States today with respect to the supply of sugar, in that, notwithstanding that there were available for supply from the first of September to the end of the present year some 200,000 tons more sugar than has ever been consumed during the same period in any previous year, there apparently will be a shortage in the last four months' supply of from 400,000 to 600,000 tons. In other words, while early in the summer ample provision was made for our normal sugar consumption, during the last six months of the year, there has been such an abnormal demand for sugar in the United States that unless something is done by the Government to relieve the situation, or unless the consumption should fall off materially from the rate at which it has been going during the early part of the year (which is not probable) the demand during the latter part of this year will exceed the supply by some four to six hundred thousand tons. To particularize: The country from the first of January, 1919, to the end of September, consumed 3,263,000 long tons of sugar against 2,661,000 tons during the same period last year, an increase of about 602,000 long tons. Viewing the situation from the standpoint of per capita consumption, we find that in 1913, the per capita consumption of sugar in the United States was 85.4 pounds; in 1914, it was 84.29 pounds; in 1915, it was 83.83 pounds; in 1916, it was reduced to 79.36 pounds; in 1917, 78.58 pounds; in 1918, it was 73.36 pounds; while if the present rate of per capita consumption is continued until the end of the year, the people of the United States will have consumed 92.4 pounds of sugar per capita, or an increase of nearly 20 pounds per capita over that of last year. At this rate, we will have consumed more than one-fourth of the total world's production.

### Sugar a Most Energizing Food

And why this increased consumption of sugar during the present year, may be asked. Nation-wide prohibition has had a very material effect in this direction. Experience and observation have taught that men, deprived of the use of alcoholic beverages, crave sweets—sugar, candy, ice cream, soda water and other soft drinks, and this increase in the demand for commodities containing considerable amounts of sugar undoubtedly has been a potent factor in the increased consumption of sugar in this country. Also, as is well known, sugar is one of the most energizing foods which can be taken into the body. It is the natural, most economical body fuel which can be consumed, and is as necessary in our diet as is coal to the blast furnace or to the steam engine. Millions of soldiers, exposed to the elements and accustomed to the strenuous work on the battlefields of Europe, have returned home with a definite knowledge of the energizing value of sugar; physical workers, who, experience has shown, crave sugar, are receiving higher wages than ever before, and instead of being compelled by pecuniary circumstances to stint in their purchases of sugar and other sweets, now are able to satisfy this craving without stint. Then, too, it must be remembered that, notwithstanding a greatly decreased production of sugar in the world, due to the war, the price of sugar in the United States during the war period, and, in fact today, is not only considerably cheaper in this country than anywhere else in the world, but the price has not risen in as great a proportion as the rise in the price of other food commodities in this country. To these and other reasons may be attributed the abnormal increase in the demand for this necessary food commodity.

### Price Low, But Must Go Higher

But theorizing as to the causes of the abnormal demand for sugar in this country can in no wise alleviate the condition which confronts the American consumer. The fact remains that the United States has a very sweet tooth; that there is no apparent effort on the part of the public to curb its desire for sweets, but on the contrary, to satisfy it to the fullest extent possible. This, coupled with the fact that there is a 2,000,000-ton shortage in the world's supply of sugar, means that during the next year there is every prospect that it will be impossible to supply the abnormal demands for this commodity and that the price will, in consequence, be higher than it has ever been before, unless the Government, as it has done during the past two years, assumes control of the situation. While every American citizen is directly concerned in the sugar situation in this country, his interest is centered principally in the price which he has to pay for this product, and because there has been a considerable increase in this price since the outbreak of war, he is apt to feel, without giving thought to the true situation, that someone is taking advantage of conditions to "boost" the price of this necessary food commodity without any warrant for so doing.

### Little Chance to Profiteer

The statement frequently appears in the press throughout the country that somebody is "profiteering" in sugar; and while there may be isolated cases of such profiteering, when one stops to reason the matter out, it readily can be seen that for the last two years, at least, there has been little chance for profiteering in sugar, especially in so far as the manufacturer is concerned, because both the price and the distribution of sugar in this country have been under the absolute control of the Government during that time. In fact, aside from wheat, sugar is the only commodity the price of which has been regulated by the Government. In order that the reader may get a somewhat comprehensive conception of the present sugar situation, it may not be amiss to review briefly the events which have brought about the present condition in the sugar market.

### Sensitive to Supply and Demand

Incidentally, it may be said that the price of sugar is more sensitive to the law of supply and demand than is the price of any other food commodity. Sugar is what is termed a "hand-to-mouth" commodity. Under normal conditions, consumption keeps close pace with supply, and with a normal annual world production of approximately 20,000,000 tons, but 800,000 or 900,000 tons of sugar in the entire world are carried over from one sugar crop year to another. With this small surplus stock of the whole world's supply, it naturally follows that a shortage in the sugar crop in any important sugar-producing country disrupts the world's markets. That country which usually was supplied by the country experiencing the shortage in order to make up the deficit must bid against other countries in other markets which it had not theretofore entered, and this added competition naturally increases the price of sugar.

Wholesale Prices of Granulated Sugar or Its Equivalent in Various Countries, in July, 1914, March, 1918, and Various Dates in 1919.

| Country | July 1914 Cents Per Lb. | March 1918 Cents Per Lb. | Various Dates 1919 Cents Per Lb. |
|---|---|---|---|
| United States | 4.21 | 7.30 | 8.82 |
| Sweden | No Data | 7.50 | 16.05 |
| Germany | 4.18 | 7.77 | 9.72 |
| Canada | 4.30 | 8.07 | 10.45 |
| Netherlands | 6.35 | 9.38 | 10.21 |
| Switzerland | No Data | 9.80 | 13.00 |
| England | 3.44 | 9.98 | 12.50 |
| Belgium | No Data | 11.12 | 15.50 |
| Poland | 7.31 | 11.87 | 18.00 |
| France | 5.82 | 12.28 | 16.80 |
| Spain | 6.83 | 13.30 | 14.61 |
| Austria-Hungary | 6.88 | 13.44 | 41.00 |
| Italy | 12.43 | 19.70 | 30.29 |

That the price of sugar in the United States is not higher today than it is, is due primarily to the patriotic spirit manifested by the domestic producers of sugar.

### Procedure of the Food Administration

One of the first acts of the Food Administration, when it came into being in the fall of 1917, was to make a careful study of the sugar situation in this country, with the result that a condition similar to that existing today was found to prevail. The world production of sugar had decreased several million tons on account of the war, the stocks in this country were extremely low, several months would elapse before the new Cuban cane-sugar crop would be available, and the only immediate source of any magnitude was the domestic beet-sugar crop which was due to come onto the market about the first of October of that year. This would mean that, left to the law of supply and demand, the price of sugar during the last three months of the year would rise to unprecedented heights. The Food Administration had no power under the law to fix prices, and the only course open to it was to appeal to the patriotism of the domestic beet-sugar producers to forego large profits which could be secured by charging the high prices which the sugar market would warrant under the circumstances. The beet-sugar producers met this appeal in a patriotic spirit and entered into a voluntary agreement with the Food Administration to charge not to exceed 7.25 cents per pound (seaboard basis) for their entire forthcoming crop. This was more than one cent per pound below the price at which cane sugar was selling at the time the agreement was entered into, so that by this voluntary action on the part of the beet-sugar producers, American consumers were saved over $16,000,000 on the 800,000 tons of domestic beet-sugar. This is assuming that the price of imported cane sugar continued at the then prevailing rate of 8 to 9 cents per pound. There is no doubt, however, that with the limited quantity of sugar available, had not the beet-sugar producers entered into the above-mentioned agreement with the Government, the price would not have remained at from 8 to 9 cents per pound, but would have risen to 15 or even 30 cents per pound. Not only did this action on the part of the beet-sugar producers mean a saving to the public of the reduced price on the domestic beet crop, but it also had the effect of stabilizing the cane-sugar market, which became active in the latter part of December, when the Cuban and Louisiana cane-sugar crops were available.

### Cane-Sugar Producers Co-operating

Having secured this voluntary agreement with the domestic beet-sugar producers which assured the American consumer a reasonable price during stringent days during the last three months of 1917, the Food Administration then took up the matter with the Louisiana cane-sugar producers, who in an equally patriotic spirit, entered into a similar agreement to limit the price of their forthcoming output. From facts presented by the Louisiana producers, however, it was made clear to the Food Administration that 7.25 cents per pound would allow little, if any, profit to the manufacturers, and a price of 7.45 cents per pound finally was agreed upon, which price remained in force during the marketing of the entire 1917-18 domestic crop of sugar. Having a leverage in its hands—the control of the price of approximately one million tons of domestic sugar—it was not a very difficult task for the Government, through its authorized agencies, to secure an agreement with the sugar producers of Cuba, from whom we receive about 50 per cent of our sugar supply, to agree upon a price for their product, based upon the maximum price to be charged by the domestic sugar producers. And so, through the patriotism of the domestic sugar producers, the American consumers were saved millions of dollars in their sugar bills.

In his statement Mr. Palmer then tells of the organization of the Sugar Equalization Board, a corporation with a capital stock of $5,000,000 which amount was turned over to the corporation by the President from his special emergency funds. He told of the procedure of this Board during the war and the fact that its contracts with the Cuban producers expire on Dec. 31st, 1919. He tells of the effort which is said to have been made in July to have the President extend the life of this corporation so that the Cuban crops might be purchased, as it was possible at that time, at a very slight advance over the former prices. Failure of the President to act, he says, caused the entire situation to get out of hand and foreign buyers contracted for most of the Cuban supply. The balance can only be purchased by

American refiners at a very high figure due to foreign competition.

### Chicago Statement

Now comes the Bureau of Foods and Markets recently created in Chicago as a part of the Health Department. Almost the first act of the newly created bureau was to instigate an investigation of the sugar situation to find out why the people of Chicago were being deprived of sugar on their tables.

This investigation was completed the latter part of September and then the bureau, acting on the information which it had gathered, sought out the confectioners and preservers for the purpose of getting a voluntary release of some of the sugar held by these industries, for the use of the general consumer.

The following statements are taken from the report of the investigation committee of the Bureau of Foods and Markets of Chicago:

### Sugar Prices and Profits

Investigation shows that the cost of producing cane sugar in Cuba does not exceed three and one-half to four cents per pound at the present time and that the pre-war price to the American refiners was but $4.04 per hundred pounds, duty paid. Yet, in spite of this fact, and of the further fact that the International Sugar Committee, through its influence and control over shipping, constituted the only market for Cuban export sugar, and were thus able to fix the price at will, the five gentlemen constituting said committee, fixed the price for the 1917-1918 Cuban raw sugar at $6.90 per hundred, far in advance of any price ever before paid under unrestricted competition. The price for the 1918-1919 crop was fixed at $7.28 per hundred pounds. It is claimed that these high prices were fixed in order to stimulate Cuban production.

In September, 1917, Mr. Hoover and Mr. Rolph called together the American refiners of cane sugar. Their differential, under competition, ranged from 70 cents to 85 cents per hundred pounds of sugar refined, according to their own statements. Although the government practically controlled the market and allotted the raw sugars to the different refineries, nevertheless the sugar control allowed the refiners a differential of $1.30 per hundred weight, which was later raised to $1.40 and in 1918 to $1.54 per hundred weight, or almost twice their former differential.

As the price of Cuban cane sugar practically controls the price of all other sugars used in the United States, the effect of increasing the price to the Cuban growers and the increased differential allowed the refiners was to raise the price to the consumers about 100 per cent.

While the Food Administration margins of profit were in force, wholesalers and jobbers actually performing the function of buying, warehousing, selling and distributing sugar were allowed a margin of 35 cents per hundred pounds, plus 2 per cent discount from the 9 cent list price for 1918-1919 crop at the refinery, plus 15 cents per hundred pounds for expense, making a total of 68 cents as a maximum that might be added by the jobbers or wholesalers to the net price of $8.82 per 100 pounds at the refinery. The margin allowed to retailers under the Food Administration regulations was 1 cent per pound on sales in original packages, 1½ cents per pound in broken packages.

There seems to be no doubt that, in spite of government regulation, the refiners of cane sugar and the manufacturers of beet sugar have made unjustifiable profits at the expense of the public. As an illustration, attention is called to the report of the chairman of the National War Labor Board, appearing in the Congressional Record, of August 8, 1919, which shows that the net profits of the American Sugar Refining Company, applicable to the payment of dividends to stockholders after all taxes and expenses of every kind were paid, amounted in 1918 to $8,400,000 as against an average for the three year pre-war period of $5,750,000. The American Beet Sugar Company showed profits of $4,800,000 in 1917 and nearly $2,000,000 in 1918 as against $1,250,000 in the pre-war period; while the Cuban-American Sugar Company increased its profits from $400,000 for the pre-war period to $4,000,000 in 1918.

Testimony taken in the U. S. Senate investigation, December 12, 1917, to January 3, 1918, also tends to show that exorbitant profits have been exacted by practically all of the sugar refiners and by the manufacturers of beet sugar, as well. It also appears that there was little real competition and that prices were fixed more or less arbitrarily by the sugar trust which includes large holdings of stock in both cane and beet sugar concerns.

### The Sugar Shortage

From our investigation it appears that the shortage of sugar is not confined to the United States, but is world-wide, the total production being placed at about 2,000,000 tons less than in 1914, which shows the largest production on record. The shortage in the United States, however, is not due to any falling off in the supply of sugar as compared with last year for, as a matter of fact, more sugar has been brought into our market than during the same period last year.

Sugar movement statistics for week ending September 20, 1919, compiled from Sugar Equalization Board's reports (in short tons) give:

Total receipts of sugar at all ports, 3,655,199 tons, an increase of 776,117 tons over same period in 1918.

"Exports—refined since January 1, 1919, 519,616 tons."

The shortage may be said to be due principally to two causes: (1) increased consumption, and (2) exportations of refined sugars in excess of our surplus. "Facts About Sugar" cites figures of the Sugar Equalization Board showing a total of 2,884,000 long tons of sugar distributed through domestic trade channels for the first eight months of 1919, which exceeded, by about 385,000 tons, our consumption for the same period last year, or an increase of 8.2 pounds per person. The same publication gives exports, January to September, as 464,000 long tons, or the equivalent of 9.9 pounds per person of the population of the United States. In other words, while we have in the eight months, January to September, consumed more by 8.2 pounds per person than last year during the same period, we have exported refined sugars to the extent of 9.9 pounds per person; hence it appears that our exports have exceeded by 79,000 tons our apparent shortage.

It is fair to say that about 325,000 tons of exports represent shipments of sugar refined in this country for the account of the British Royal Commission, which, by agreement with the International Sugar Committee was, as a matter of accommodation to the allies, to be permitted to have 435,000 tons of its Cuban sugar refined in this country on the same terms as for domestic use. If this refined sugar could have been kept in this country it would have completely relieved our present shortage.

### Survey of Chicago Sugar Situation

The city of Chicago is the home of a large number of manufacturing concerns which necessarily use vast quantities of sugar in their business. The makers of candies, soft drinks, chewing gum, ice cream and soda fountain supplies can not run their factories without sugar and the demand for these products has been unprecedented. In addition to the foregoing, Chicago has many wholesale dealers who supply thousands of retail stores outside of Chicago with sugar in broken lots which has been shipped here in car lots.

The normal sugar requirements of Chicago, for consumption and trade use, is approximately 375,000 bags of 100 pounds per month, or 450,000,000 pounds per year. It is estimated that less than one-half of this amount represents household consumption.

A survey made by investigators of the bureau, prior to September 25, 1919, showed a visible sugar supply on hand of about 12,000,000 pounds not including the limited stock in possession of the retail grocers and consumers. It also showed that 90 per cent of the 12,000,000 pounds referred to was in the hands of manufacturers while 10 per cent was in the hands of wholesalers and jobbers for use in retail trade, and that 85 to 90 per cent of the retail grocers at that time had no sugar on hand and were unable to secure sugar to supply their family trade.

### Report of Advisory Board

Following an exhaustive hearing on the subject, the advisory board, on September 30, by unanimous vote, presented the following report and recommendations:

"To the Bureau of Foods, Markets and Farm Products:

"Your advisory board respectfully reports the following facts, shown by the evidence and records of the bureau, and the report of the director produced at the hearing upon the present sugar conditions before this board on the 26th day of September, 1919, as follows:

"1. The evidence shows that substantially all of the 1918-19 crop of sugar available for use in the United States domestic market, except about 500,000 tons, is exhausted; that the said 500,000 tons is Cuban sugar under the control of the United States Equalization Board and is located on the docks in Cuba or at the refineries or in transit, and is now steadily being refined and distributed to the trade by the Equalization Board and will not all be upon the market until on or about November 15.

"2. That the only other source of supply for the United States until about January 8, will be the beet sugar from the western states and Louisiana cane sugar; that the beet sugar crop is normal and is now beginning to come in from California; that the Louisiana cane sugar crop is short, being about 150,000 tons as against a normal yield of 250,000 tons, and will come on the market in November and December.

"3. That the consumption of sugar in the United States has increased this year 384,000 tons over the amount consumed in 1918 in the corresponding period.

"4. That the price of sugar in the United States for the 1918-19 crop was fixed by the Cuban crop, which was bought by the United States Sugar Equalization Board in the fall of 1918, and by agreement with the refiners was to be refined and sold, at the refineries, to the trade at 9 cents per pound, and that said agreement has been kept.

"5. That the control of the United States Equalization Board expires in December of this year, unless extended by congressional action, and that the said board has no control of the new crop of 1919-20, or of the beet and Louisiana sugars to come in between now and January, 1920, all of which are included in the 1919-20 sugar crop.

"6. That there is an acute shortage in sugar available for the retail trade to supply household consumers; and that the situation is so critical that retail dealers and jobbers can get sugar to supply their trade for household use only in such limited quantities that there is now, in the midst of the fruit season, a veritable famine of sugar in Chicago for household use, and that sugar is almost unattainable even for table use by the majority.

"7. That by reason of market conditions and provident buying for future delivery, manufacturers of sugar products have been and are able to get a more adequate supply of sugar than household consumers, and that most of the sugar now coming into the Chicago market or held in storage is diverted to the use of manufacturers.

"8. That the normal amount of sugar consumed in Chicago including manufactures is about 1,500,000 pounds daily. That a survey of the city shows that during September the amount held in storage is about 12,000,000 pounds, or about one week's supply, and that the greater portion of that is held for manufacturing uses.

"9. That the causes for this diversion of sugar from retailers for household use given by the experts examined are as follows:

(a) The new crop coming in is not under government control, and the factories are asking a higher price.

(b) The sugar not under contract held by persons outside of the regular trade (of which there is but a small amount), will not be released at the price heretofore fixed by agreement between the Food Administration and the refiners and manufacturers of sugar.

(c) There is no limitation imposed upon the price manufacturers may pay for sugar and they are free to bid according to their necessity or desire, while it is currently understood that the government demands that sugar shall not be sold to the consumer for household use at more than 11 or 11½ cents per pound.

(Since the above finding the President has appointed Attorney General Palmer as Food Administrator. According to press reports Mr. Palmer has announced a wholesale "Fair Price" of 12 cents a pound for beet sugar and 17 cents per pound for unrefined Louisiana cane sugar, although the latter is inferior to refined sugar. The reason for allowing Louisiana producers and dealers the higher price does not appear.)

(d) That a reasonable profit to allow the retailer is 1 cent per pound, and the jobber about 50 cents per hundred, and that under the above conditions dealers cannot buy the sugar now being offered at $11.50 per hundred pounds and sell it to the consumer at 11 or 11½ cents per pound, without loss.

(e) That the exportation of refined sugars to foreign countries has contributed to the shortage at home.

"10. That there will be an acute shortage of sugar in the market until on or after November 15, and that the shortage for household use will continue longer than that unless some action is taken to equalize the price and to reduce the consumption of sugar.

"11. That one great cause for the excessive consumption of sugar is the increased use by the people of candies and confections and the consequent increase in the use of sugar for such purposes.

"12. That the government has taken no action in regard to the Cuban sugar crop of 1919-20 and that the uncertainty as to what action the government will take in keeping United States buyers out of the market for foreign and domestic sugars, and is extremely detrimental to the trade.

"In view of the facts shown, this board recommends as follows:

1. That the President of the United States be requested to determine and state without delay the policy of the government in relation to the 1919-20 sugar crop, and that Congress be urged to pass remedial legislation at once if it should be deemed necessary.

2. That the government rule discriminating against the retailer in the price of sugar for household use be at once modified.

3. That a campaign be inaugurated for the conservation of sugar and against the excessive use of candies and confections during the present shortage of the sugar supply.

4. That the exportation of sugar be controlled and limited.

5. That conferences be held with the brokers, dealers, and manufacturers of sugar products and the authorities of the city, state and federal governments to consider the question of distribution and to bring about an equitable rule for the distribution of sugar between manufacturers and the retail dealers for home consumption.

"Many dealers, including brokers and manufacturers, have expressed themselves to the director as being willing to enter into a proper arrangement for a just and equitable distribution of sugar to relieve the present distress, and the board is of the opinion such a conference would be beneficial, tending to remove much of the unrest and dissatisfaction now existing among the people.

### Conclusions and Recommendations

1. There would be no danger of a serious sugar shortage in Chicago if the sugar shipped into our city was equitably distributed, but, unfortunately, the attempted fixing by the government of prices at which merchants might sell to consumers, while no restriction in price seems to have been made affecting manufacturers of candy and other sugar products, has resulted in a larger share of the sugar going to manufacturers than is consistent with an adequate supply for household use. Present receipts equal about two-thirds of our requirement for all purposes, due largely to the fact that sugar makers and dealers are not releasing the balance of their supply in order to take advantage of advancing prices. In the meantime, the public is advised to limit purchases of sugar and sugar products to normal and to refrain from hoarding, and to use substitutes for sugar whenever this can be done economically.

2. A limited embargo should be placed upon the exportation of sugar refined or manufactured in the United States, so that only our surplus would be shipped out of the country. In view of the present condition of world production and the fact that we have to import about one-half our requirements, the American people have a first claim upon the sugar produced or refined in the United States.

3. Government price fixing and control of the sugar industry has not operated to provide an adequate supply and equitable distribution or to maintain a reasonable retail price of sugar to the ultimate consumer, but has practically destroyed competition while allowing the refiners of cane sugar and manufacturers of beet sugar to pile up enormous profits without financial risk.

4. The interests of the people of the city of Chicago and of the United States would, we believe, be best served by a return to a competitive basis and to the operation of the natural law of supply and demand.

5. To promote industry, encourage competition, and stimulate the unfettered operation of the law of supply and demand, the Congress of the United States should enact a law providing imprisonment in the federal penitentiary for any person, who, either as a principal, agent, or servant, shall agree with any other person, firm or corporation to fix the price of sugar or any other article of food.

# The Scientist Turns Detective For Candy Manufacturers

### By WALTER L. DODD

"THIS is the source of your trouble," remarked the expert, as he extended a hand containing several reddish brown beans, to his friend.

WALTER L. DODD

"Look carefully at the ends of the beans, particularly the mouldy ones," he continued, as the client picked up the beans for close scrutiny. "You will see a small pinpoint hole. From that hole your trouble emerged."

The conversation was a sequel to a conference held several days previous. The client, a large and progressive chocolate candy manufacturer, had called in distraction at the spoilage occurring in his factory. Delicious chocolate creams and other dainty confections were daily being rendered unfit for packaging because of their being infested with small worms. The cooling room, where the finished candy was stored before being packaged, had been thoroughly cleaned—not once but repeatedly. Every container, every piece of candy, every movable piece of furniture had been removed with each cleaning operation. The room had been denuded to absolute bareness. Scrubwomen had then entered with their boiling water, stiff brushes and soap, and applied them vigorously to the ceiling, walls and floors of the room. Every shelf had been removed and scoured on all surfaces. Not a crevice, not a corner, not a niche had been neglected. Every piece of candy formerly in the room, had been destroyed. Not a container not a piece of furniture had re-entered the room until it had received the steaming brush of a scrubwoman. The room had positively radiated cleanliness.

**Few Days' Relief**

For a few days following these drastic and expensive methods the fresh candy stored in the room would remain fresh, inviting and free from worms. Then the trouble would start all over again. Seldom were the worms found in the creamy centers, almost always they were on the chocolate coatings. Many of the candy pieces, while containing no worms, were unsightly and unfit for sale, because of the tracks of worms which had passed across their surfaces. The losses were running into the thousands. And this destruction to product was occurring at a time when the incoming mail was clogged with rush orders for shipments. Nor was the spoilage of product, or the loss of business through inability to fill orders, the only damage. There was the constant panicky horror that some of the worm infested product might accidentally get into trade channels and work desperate injury to the reputation of the manufacturer.

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*Mr. Dodd, with the Pease Laboratories, New York, tells many interesting facts in this article about the methods of chocolate candy manufacture and something about the troubles which the scientist is called upon to trace to their origin and devise ways and means of eliminating. Years of scientific experience and a ready pen has made him an interesting writer on food scientific subjects. Others of his stories will appear in later issues of this publication.*

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The expert resumed the thread of his discourse. "As a large candy manufacturer, you have a separate department where the cocoa you import from tropical America is worked up into cakes of chocolate for coating your creams. What is the history of that cocoa before it reaches you?"

**Where Cocoa Grows**

His client considered for a moment, then replied, "The cocoa trees thrives best in the soft rich soil of sheltered valleys, watered by large streams. Frequently, the young trees are screened beneath the drooping fronds of the banana tree as a protection against the blazing tropical sun. In due time the young tree blossoms with numerous tiny reddish white flowers, which gradually mellow into a lesser number of rather small gourds. In fact, it is not unusual for a thousand blossoms to yield but one fruit. The gourds ripen slowly from a green to a reddish yellow at which time they are plucked from the tree and split in half. These split halves show a sweetish pulp surrounding two or three dozen almond-shaped seeds—the cocoa bean, or source of chocolate. Natives scoop the beans from the pulp, spread them on bamboo screens and allow the sun to dry them."

"But they cannot be shipped," the client continued, "until they receive an additional treatment known as 'sweating,' otherwise, fermentation would develop on the way across and the beans would reach me sour and rancid, impossible to use. At the same time this sweating or fermentation process darkens the color of the bean and improves its flavor. Sweating processes vary. One method is to line perforated casks with banana tree leaves, drop the over-ripe beans into the cool green depths, cover with more leaves and allow fermentation to proceed for two or three days. The dried beans are then sewed into burlap bags and shipped. You probably saw the bags in my receiving room."

"Yes, that is where I made the start of my investigation of your difficulty—with beans from these unopened exported bags," the expert replied as he settled back in his chair.

"I found the receiving room," he continued, "to have good ventilation, well adapted to dry any beans accidentally moistened in transit. Bags received in a dry state were piled on an open space of the room. From these unopened bags in storage I selected several handfuls of beans. The majority looked normal, in color a reddish brown and with a smooth unbroken surface. Many, however, particularly mouldy beans, were punctured at one end with a tiny hole. In some instances, a delicate grey thread to which were attached numerous minute reddish brown specks, dangled from this hole, the excretia of the worm, which had passed within. Other of the beans, when opened, disclosed the worm itself, while in other samples, an empty yellow case surrounded with a fluffy greyish white spun cloud, told where the little worm had changed to a moth and emerged.

"You will see in these beans the various stages of development," the expert remarked, as he selected several beans from a container on his desk.

The client picked them up and turned them over carefully in his hand. Finally, he glanced up with a perplexed air.

"But I don't quite see," he commented, "the connection between these worm eaten beans and moths in the receiving room with the worms in my finished candy. These rooms are on different floors, even in different, but adjoining buildings. I don't see how the worms could get from one building to the other."

"I can appreciate your bewilderment," the expert returned. "It gave me several moments' thought. But I think you will be even more confused as my story continues. You will pardon me if I outline briefly your manufacturing operations, but I wish to show how these are destructive to worm life.

### The First Step

"I found the first step in the manufacture of your chocolate, to be a thorough cleaning of the beans. Cleansing is necessary, I was informed, to remove sand, stones, torn burlap particles or other foreign material. This is done, as you know, by shaking in a revolving screen through which a blast of air passed. It is unlikely that many of the worms were removed by this process."

The expert paused for a moment to scratch a match and provide an ash tray for the cigar which the client had selected.

"Roasting of the beans, the next processing operation, unquestionably destroyed the worms in infested beans."

The perplexed furrow in the client's forehead deepened, testimony of his futile cogitations as to how a roasted bean in which all life had been destroyed, could later, when made into chocolate, develop the squirming, wriggling worms so destructive to his product.

The expert continued, "The hot beans are cooled and fed into coarse grinding machines to separate husks from nibs. These grinding operations would be destructive to worm life. Your blend is then made with the nibs of other beans.

"To these nibs, sugar and possibly flavor is added to make your chocolate. Experience has taught that heat is essential to obtain an intimate mixture. To this end the sugar is maintained in hot closets and the ground cocoa mass in steam heated jacketed containers, withdrawing as desired. Here again, is an agent—heat—which is destructive to life. Surely, any worms that miraculously survived the roasting drums would be destroyed by this continued holding at high temperature. Yet at the completion of the next process, moulding of the chocolate into cakes, worms were found.

The client sat erect with concentrated attention, the grey ashes of his forgotten cigar sprinkling his lap.

The expert went on, "You next mix the hot cocoa mass, sugar and possibly flavor, to form chocolate, on the granite rollers of the melangeur. Here the smoothly gliding granite rollers knead the mixture to a smooth chocolate, but in order to attain the maximum in smoothness you pass the chocolate mass from the melangeur repeatedly between the revolving granite rollers of cylinder rolling mills. The incorporated air is then extracted by machine, the chocolate mass cut to size, moulded into cakes and cooled. During these processes, the chocolate has been kept hot and this combined with the repeated crushing under or between the ponderous stones of the melangeur and rolling mills would most certainly destroy any contained life."

"We come now to the denouement," the expert smiled at his attentive but confused client.

### Makes Recommendations

"In this report which I have prepared," he remarked, tapping some bound sheets on his desk, "you will find recommendations to do four things, all of which are simple and inexpensive to perform. First, you must carefully and thoroughly screen all openings to the receiving room where the exported bags of cocoa beans are first brought. Second, you are to provide metal boxes of solid construction in which to keep the cakes of chocolate after removing them from cold storage to be carried to the chocolate coating room. Third, you are to decrease the temperature of the cooling room in which the hot moulded cakes of chocolate are placed. Fourth, you are to rigidly maintain your present high standards of plant cleanliness and sanitation."

"Well, those recommendations are not difficult to attain," the client laughed. "But tell me how did the worms get into the finished candy. I realize that worms infested the surfaces of cake chocolate brought from cold storage, but I don't see how any contained life could survive the heat when this chocolate was melted for candy dipping. For that matter, I can't for the life of me understand how the worms originally in the exported beans were able to pass the heating and crushing operations of chocolate manufacture and be found on the moulded cake."

### The Explanation

The expert then nodded his head in affirmation, then resumed. "The explanation although apparently difficult on the face of it is in reality simple. You will recall that these beans which you have been examining were obtained from unopened exported bags of beans. In other words, these beans contained worms before you received them. Whether the worms entered beans before or after they were fermented by the natives, is immaterial. The main fact is that the beans contained living worms. The burlap bags containing these beans were stored in an open space of an unscreened room. The open unscreened windows and doors of this room were no bar to their escape and they easily flew to other rooms, even to other buildings. But let us forget the moths for the moment and return to the processing of worm eaten beans from the bags. There is no question but that the heating and crushing manufacturing operations destroyed all life in the beans. The cocoa, however, became worm infested, a second time, after it was moulded into cakes of chocolate. I found that these cakes of chocolate were transported from room to room on freight hand trucks, the chocolate being contained in wooden crates or boxes whose crevices and cracks were alive with worms. From these sources, worms crawled on to the cakes of chocolate. When the chocolate went into the cooling room, the temperature was not maintained sufficiently low to check worm development. You can readily see that the presence of worms in your cakes of chocolate was due to worm infested containers and too high a temperature in your cool storage room for moulded cakes of chocolate."

"So much for the worms in the moulded chocolate. The story is entirely different for the worms in the chocolate coating of the candy cream centers. The trouble in this instance was largely occasioned by

(Continued to page 32)

# Secretary Houston's Annual Report

IN his annual report for the year 1919, Secretary D. F. Houston of the U. S. Department of Agriculture, gives facts and figures to show that the farmers of this country were not only prepared to supply greatly increased amounts of agricultural products if the war had continued, but that they did meet the post-war demands for food by foreign countries as well as this country with crop increases that went way beyond the average of all previous years.

All requests of the government for the increase of farm products were met by increases that exceeded the amounts asked for. Increased acreage and increased yields per acre were shown not only during the war, but also in the year following the signing of the armistice and these have caused the secretary to view agricultural conditions with the greatest optimism.

In his report the secretary urged the appropriation of larger sums of money for the education of the farmer in farm economics and scientific farm management and to educate the public to a greater knowledge of the relationship of our agricultural industry to the general welfare of the nation.

He objected to proposed legislation to federalize market control on the grounds that the creation of such an immense national system would produce a cumbersome machine that would break down of its own weight, but instead, he urged a continued development of the federal, state and community marketing control systems such as have already been formed and operated in many parts of the country.

In regard to the subject of greatly increasing our acreage he said that there is a popular belief that if the farming area could be rapidly multiplied that this would result in more abundant crops and lower prices. This, he said, is a fallacy because too great an increase in acreage would result in periods of glutted markets with the consequent discouragement to the farmer and greater wastes of products. He believes, however, that there is each year a normal increase in acreage and this normal increase in acreage should be continued so that the farmer will have a steady market and a steady price for his crops which will result in a steady flow of products to the markets at a price which will permit the farmer to do business at a normal profit.

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*There is a strong optimistic note as to the future of American agriculture voiced by Secretary Houston in this report which tells of the activities of his department during the last year and something of plans for the future.*

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In this connection he says that one of the great problems of the day is to convince the urban population that farming is a business and must be permitted to be run on a business basis with profit to the farmer.

The following are extracts from the report which give figures regarding the crop conditions of this and foreign countries:

### 1919 Acreage and Yields

The farmers of the nation, in 1919, planted an acreage in leading cereals greater by 33,000,000 than the pre-war annual average (1910-1914), which, it is estimated, will yield 635,000,000 bushels more than the pre-war average, and increased the number of milch cows over 1914 by 2,700,000, of other cattle by 8,500,000, of swine by 16,700,000 and of horses and mules by 1,000,000, or a total of 28,900,000. The planting operations for the year began before the fighting ceased. The call was still for more wheat. The department suggested a maximum fall acreage of 47,206,000 acres, an increase of 12 per cent over 1918. There was actually planted 49,261,000, the largest acreage in the nation's history, 6,960,000 acres more than in 1918 and 15,608,000 more than the five-year average, 1910-1914. The spring wheat acreage was 22,593,000, while the winter and spring plantings combined amounted to 71,854,000 acres, or 7,200,000 more than the preceding record and 19,400,000 more than the pre-war average. It is estimated that the yield will exceed that of 1918 by 1,000,000 bushels and will be the nation's second record wheat crop. The estimated corn crop of 2,910,000,000 bushels will be 300,000,000 greater than that of 1918 and only slightly less than the high yields of 1915 and 1917.

If the fighting had continued and the season had been favorable, there is little question that the farmers of the country would have planted an aggregate crop acreage, during the winter and spring, greater than that for any preceding year in the nation's history.

Forecasts of meat production for 1919 from partial reports of slaughtering, indicate that the record figure of last year—20,250,000,000 lbs.—will be exceeded. The total will probably reach 21,000,000,000 lbs., as follows: Pork, 12,900,000,000 lbs., compared with 11,248,000,000 in 1918 and 8,769,000,000 in 1914: beef, 7,500,000,000 as against 8,500,000,000 in 1918 and 6,079,000,000 in 1914; and mutton, 600,000,000 lbs. as against 537,000,000 in 1918 and 739,000,000 in 1914.

A rough estimate, based upon the number of milch cows and the census average of milk production per cow, indicates that the number of gallons of milk produced in 1919 will aggregate 8,495,000,000, or 57,000,000 more than in 1918 and 1,029,000,000 more than the average for 1910-1914. The figures for poultry and egg production have not been accurately ascertained, but it is roughly estimated upon the basis of reported increases from one census to another that egg production in 1919 will aggregate 1,957,000,000 dozen, as against 1,921,000,000 in 1918 and 1,774,000,000 in 1914, and that the number of poultry raised on farms will approximate 600,000,000.

### Exports

The exports of foodstuffs, enormous during the war, rose greatly between the armistice and midsummer. The annual average exports of important cereals for the five years preceding the war were 162,000,000 bushels. They rose to 517,000,000 in 1915 and aggregated 448,000,000 in 1919. Dairy products, of which 25,000,000 lbs. were exported on the average during the five-year period before the war, increased in volume to 102,400,000 lbs. in 1915, 217,500,000 in 1916, 352,000,000 in 1917, 592,000,000 in 1918, and 781,000,000 in 1919; while the exports of meat and meat products were 1,291,000,000 lbs. for the five-year average before the war, 1,500,000,000 in 1915, 1,800,000,000 in 1916, 2,300,000,000 in 1918, and 3,300,000,000 in 1919.

### Values

On the basis of prices that have recently prevailed, the total value of all crops produced in 1919 is $15,873,000,000, compared with $14,-

222,000,000 for 1918; $13,479,000,000 for 1917; $9,054,000,000 for 1916; $6,112,000,000 for 1914; and $5,827,000,000 for the five-year average, 1910-1914. These values represent gross production and not net returns to the producer. The value of live stock on farms in 1919 was $8,830,000,000, compared with $8,284,000,000 in 1918; $6,736,000,000 in 1917; $6,021,000,000 in 1916; $5,890,000,000 in 1914; and $5,318,000,000 for the five-year average, 1910-1914.

This increased financial showing, it is again necessary to emphasize, does not mean that the nation is better off to that extent or that its real wealth has advanced in that proportion. Considering merely the domestic relations, the true state is indicated rather in terms of real commodities, comparative statements of which are given in the foregoing tables. The increased values, however, do reveal that the monetary returns to the farmers have increased proportionately with those of other groups of producers in the nation and that their purchasing power has kept pace in the rising scale of prices.

### Progress of American Agriculture

The results of agricultural operations during the war furnish guaranty of the ability of the present farm population of the country, with the area now in farms and in the existing state of agricultural science and practice, to meet the nation's necessities for the near future if the requisite incentives are furnished. But there are reasons for further optimism. As has been repeatedly pointed out, we still have a large area of untouched tillable land. This is somewhat generally understood, but it is not so well known that, as the result of improved processes and better practices in all sections, there has been an upward tendency in the acre yields. As a matter of fact, the view seems more frequently to be expressed that in this respect American agriculture has deteriorated. The facts disprove this, and in no part of the Union more strikingly than in the older regions, such as the New England and North Atlantic states.

Crop yields per acre in the United States show an upward tendency during the period for which we have reliable comparable statistics. The average rate of increase for the past 25 years has been about one-half of one per cent a year. This gain is not readily observed from one year to another, owing to the wide yearly fluctuations in yield. But when averages for a series of years are obtained, the effect of the seasonal variations is largely neutralized and the general trend is clear.

During the decades of the seventies and eighties, when there was a vast expansion of farm area in the West and crops were grown on a more and more extensive scale, the tendency of crop yields per acre was downward. Since the early nineties, however, the movement has been upward.

In the decade of the eighties, that is, for the 10 years ending with 1890, the average yield per acre of wheat in the United States was 11.84 bushels; for the past 10 years, that is, for the 10 years ending in 1918, it was 14.87—an increase of 25 per cent.

For the 10 years ending in 1890 the average yield of corn in the United States was 23.43 bushels; in the 10 years ending in 1918 it was 25.81—an increase of 10 per cent.

The oats yield in the 10 years ending in 1890 averaged 25.92 bushels, but in the 10 years ending in 1918 it was 32.17—a gain of 24 per cent.

The potato crop averaged 72.97 bushels per acre for the 10 years ending in 1890, and 96.84 for the last 10 years—an increase of nearly one-third.

By a like comparison, it may be observed that the hay yield rose from 1.193 tons per acre to 1.432—an increase of 20 per cent.

Cotton, notwithstanding the ravages of the boll weevil, increased from an average of 169.78 pounds in the decade ending in 1890 to 175.73 in the last decade—a gain of 3½ per cent.

Other field crops have likewise shown greater yields. The average increase per acre of all crops in the 10 years ending in 1918, compared with the 10 years ending in 1890, was about 16 per cent.

### Foreign Yields Also Increased

Not only in the United States, but in most civilized countries of the world, the yield per acre has been tending upward in recent years. This is noted in respect to wheat in practically all wheat-growing countries. If we compare the average wheat yields per acre in the 10-year period, 1891-1900, with those in 1901-1910, we find that in the United Kingdom there has been an improvement of 6 per cent, that is, from 30.1 to 31.9 bushels; in the Netherlands, of 19 per cent or from 27.7 to 33; in New Zealand, of 28 per cent, or from 24.6 to 31.5; in Sweden, of 14 per cent, or from 24.2 to 27.6; in Germany, of 23 per cent, or from 23.6 to 29.1; in Ontario, of 12 per cent, or from 19.4 to 21.8; in Manitoba, of 7 per cent, or from 17 to 18.2; in France of 8 per cent, or from 18.1 to 19.5; in Hungary, of 3 per cent, or from 17.3 to 17.8; in Japan, of over 2 per cent, or from 17 to 17.4; in Poland, of 3 per cent, or from 15.5 to 15.9; in Roumania, of 21 per cent, or from 14 to 16.9; in the United States, of 8 per cent, or from 12.9 to 13.9; in India, of 16 per cent, or from 9.7 to 11.3; in Caucasia, of 18 per cent, or from 9.5 to 11.2; in Russia, excluding Poland and Caucasia, of 14 per cent, or from 8.3 to 9.5 bushels. These countries are given in the order of their relative rank in yield per acre during the period 1891-1900. Satisfactory comparative data are not available for Argentina. Similar gains have been observed in other crops.

### Comparative Yields

The average yields in the United States are frequently compared with the much larger yields in some European nations. In Belgium the average yield is about double that in the United States; in the United Kingdom, more than 60 per cent greater, and in France, nearly 15 per cent. It should be borne in mind, however, that the energy of each American farmer is spread over a larger area and that, although he produces less per acre, he produces much more per man. The total output of the average farmer is probably greater in the United States than in any other country in the world. Thus, in Bedgium, with its intensive system of farming, only about 5.3 acres are cultivated for each person engaged in agriculture, whereas, in the United States, the corresponding figure is 27 acres. Taking both acreage and yield per acre into consideration, the average American farmer produces 2.5 times as much as the average Belgian farmer; 2.3 times as much as the English; 3.2 times as much as the French; 2.5 times as much as the German, and over 6 times as much as the Italian.

For many years to come the average yield per acre in the United States may be expected to increase, although the total output per man may diminish. This country has a long distance to go before it comes in sight of its limit of farm production. It can further increase its output of commodities by continuing to secure increased yields per acre. It has been estimated by experts that only about 15 per cent of the land in cultivation is yielding reasonably full returns. The opportunity is presented, as conditions warrant, to bring the remaining 85 per cent up to the point of fair yield. One of the objectives of all good farmers and of the agricultural agencies assisting them is to promote increased yields along economic lines by the further application of scientific knowledge and the adoption of improved practices. The path of progress is pretty well charted and the agricultural forces are moving along it with gratifying speed. However, the maintenance of satisfactory increases necessitates the continuance and enlargement of investigational work, particularly such as is required to insure fuller control of destructive plant diseases and insect pests.

### Farm Land Problems

The Nation can further expand its output of commodities by cultivating the tillable land which at present is unused, estimated to be over 60 per cent of the total. But there has been no such full consideration of the policy which should be pursued in reference to the extension of the farm area as has been given to economical production. Since the Nation now retains but little land of ready availability, agricultural expansion will result mainly from efforts to utilize and to increase the productivity of farm lands now owned by individuals, corporations, and the States.

A number of important questions must be answered: How rapidly should new areas be developed? What means should be employed to bring new lands into use, so that settlers may achieve success, employ sound methods of husbandry, and establish a wholesome community life? What is the significance of the increase of tenancy and what may be done to establish a system of land tenure which will insure good farming and a sound and democratic foundation for American agriculture? What is the bearing of the increasing prices of land and the resulting speculation on the progress of agriculture and the welfare of the farmer?

### Expansion of Area in Farms

The expansion of the Nation's agriculture is limited by the supply of labor and capital available for farming purposes rather than by the scarcity of undeveloped lands. It is true that, in general, the best land is already in cultivation, but without question much of the remainder can be tilled when the country reaches the economic stage which would justify its utilization. * * * *

It is not in the interest of producers or consumers to have large fluctuations in agricultural production. There is always danger of glutting the market and of serious loss. The aim rather should be to secure a steady flow of commodities of sufficient volume to supply an increasing demand at prices which will yield the farmer a decent wage and a fair profit on his investment. It seems difficult to get it into the minds of some people that farming is a business and must pay; that under modern conditions there can not be an unlimited number of farmers. There could be a larger proportion of farmers to total population if each farm were self-sufficient and produced no surplus of consequence, but today the average farmer produces many times what he consumes of some things and is dependent for his prosperity upon their profitable exchange for other articles which he uses. There should be, and in the long run there will tend to be, no more farmers in the Nation than are needed to produce the quantity of products which can be disposed of at a profit. There will be farmers enough if the business of farming is made profitable and if rural life is made attractive and healthful. The consumers must be willing to pay prices for farm products which will enable farmers to produce them and to maintain a satisfactory standard of individual and community life. The Nation also must be prepared to omit nothing to improve the countryside. It is of the first importance that satisfactory schools, with courses of study related to the problems of rural life, be provided, that good roads be constructed, and that adequate provision be made to give rural communities the requisite sanitary and medical services, including hospital facilities. When these requirements are met, we shall not have to concern ourselves as to the number of farmers and the adequacy of our agricultural production. There will then be no difficulty in retaining in the rural districts a sufficient number of contented and efficient people. What we need is not a "back to the land" propaganda, but an acceleration of the movement for the improvement of the countryside which will render the abandonment of farms unnecessary and the expansion of farming inevitable.

### Past Action, Future Steps

The promotion of agriculture and the betterment of rural life have, for many years, received the earnest attention and support of State and Federal authorities. Several generations ago the foundations were laid for the two great agricultural agencies, the land-grant colleges and the Federal Department of Agriculture, which have no rivals elsewhere in the world. The State colleges steadily developed until in 1918 they had plants and endowments valued at $184,400,000, annual incomes aggregating $47,700,000, and resident and short-course students numbering 123,000, of whom 45,000 were in agricultural courses. Their student body has greatly increased this year. They are now engaged, in co-operation with the Department of Agriculture, in agricultural extension work involving an annual expenditure of more than $14,000,000. They have been conducting investigational and educational work for many years and have placed in all parts of the Union farm leaders with scientific and practical vision. The Federal Department of Agriculture, whose personnel now numbers more than 21,000, is expending from all sources during the current year $41,800,000, aside from the $294,000,000 made available by the original and amended Federal aid road act for the co-operative construction of roads.

### Much Legislation

As has been repeatedly pointed out, the last five or six years have been especially fruitful of legislation and administrative action looking to the improvement of production and distribution. The principal items are the following:

(1) The Bureau of Markets, excelling in the character and extent of its activities any other similar existing organization.

(2) The Co-operative Agricultural Extension Act, the object of which is to disseminate information among the farmers, mainly through trained agents. As has been indicated, there is now expended annually, from Federal, State, and local sources, more than $14,000,000 for work contemplated by this act.

(3) The Cotton Futures Act, with amendments, under the provisions of which standards for cotton have been established, the operations of the futures exchanges supervised, and the sale of cotton put on a firmer basis.

(4) The Grain Standards Act, which aims to bring about uniformity in the grading of grain, enable the farmer to obtain a fairer price for his product, and afford him a financial incentive to raise better grades of grain.

(5) The Warehouse Act, which authorizes the Department of Agri-

culture to license bonded warehouses and which makes possible the issuance of reliable and easily negotiable warehouse receipts, permits the better storing of farm products, increases the desirability of receipts as collateral for loans, and promotes the standardizing of storages and of marketing processes.

(6) The Federal Aid Road Act, as amended, which made available $294,000,000 for co-operation between the Federal and State Governments in the construction of rural roads. It has conduced to the establishment of more effective highway machinery in each State and strongly influenced the development of good road building along right lines. It will stimulate larger production and better marketing, promote a fuller and more attractive rural life, add greatly to the convenience and economic welfare of all the people, and strengthen the national foundations.

### National Loans

(7) The Federal Reserve Act, which authorized national banks to lend money on farm mortgages and recognized the peculiar needs of the farmer by giving his paper a period of maturity of six months.

(8) The Federal Farm Loan Act, which created a banking system reaching intimately into the rural districts and operating on terms suited to the farmer's needs. It is attracting more capital into agricultural operations, bringing about a reduction of interest to farmers, and placing upon the market mortgages which are safe investments for private funds.

(9) The Vocational Education Act, which, among other things, provides for co-operation with the States in training teachers of agriculture and in giving agricultural instruction to pupils in secondary schools.

Among other steps which should be taken are the following:

(1) The building up, primarily under State law, of a system of personal credit unions, especially for the benefit of farmers whose financial status and scale of operations makes it difficult for them to secure accommodations through the ordinary channels.

(2) Expansion of existing facilities and activities for aiding farmers in marketing, including especially the extension of the market news and food-products inspection services and the assignement of trained market specialists to each State, in co-operation with the State authorities, to stimulate co-operative enterprises and to make helpful suggestions as to plans and methods.

(3) Continuation of the present policy of Federal participation in road building, through the appropriation, if the financial condition of the Nation permits it, of $100,000,000 for at least each of the four years beginning with the fiscal year 1922, to be expended under the terms of existing legislation.

(4) The regulation and control of stockyards and packing houses.

(5) Federal legislation further to protect consumers against misbranded, adulterated, and worthless feeds entering into interstate commerce.

(6) Similar legislation dealing with fertilizers.

(7) Increased support by States for rural schools and more definite direction of their instruction along lines related to rural problems and conditions.

(8) The requisite legislation for the improvement of the sanitary conditions in rural districts and for the building up of the needed hospital and medical facilities.

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## Olive Oil Imports

IN the fiscal year ending June 30, 1910, the U. S. A. imported a total of 3,702,210 gallons of edible olive oil. Of this, 2,356,086 gallons or 64 per cent came from Italy. Approximately 66 per cent of this total importation of edible olive oil in that year came to us in containers of less than five gallon capacity. In other words, ten years ago two-thirds of the olive oil consumed by us was obtained by us in tins packed abroad.

In the nine months ending September 30, 1919, the U. S. A. imported a total of 7,365,207 gallons of edible olive oil or approximately twice as much as was imported in a whole year ten years ago. This remarkable gain was made notwithstanding the greatly increased domestic production of oils and fats that are advertised to be "just as good as olive oil."

Of this total importation during the first nine months of this year, 7,172,099 gallons or over 97 per cent came from Spain, which is now the greatest olive oil producing country in the world. There was a time when olive oil from the province of Lucca in Italy was thought by consumers in the U. S. A. to be far superior to olive oil produced anywhere else in the world. This misapprehension on the part of our consuming public was turned to account by unscrupulous dealers who did not hesitate to import olive oil into Italy from Spain and elsewhere and pack it and dispose of it in America as genuine Lucca oil. Naturally, it was not long before there was far more "Lucca" olive oil on the American market than was ever produced in Lucca. Even now, many consumers in the United States express a preference for Italian olive oil and pay a higher price for oil marked as coming from Italy but which in most cases and particularly this year is Spanish oil imported into and re-exported from Italy to this country in an Italian package.

Another prejudice that is losing ground in the olive oil trade is the preference for oil packed in foreign cans. Of the imports during the first nine months of this year, only about 10 per cent came in containers of less than five gallon capacity as compared with 66 per cent ten years ago. Consumers realize that adulterations are more likely to be found in cans packed abroad because the foreign packers are not subject to our pure food and drug laws nor are there packing plants anywhere near as modern or sanitary as are the better known plants in this country. Moreover, the Spaniard and the Italian do not understand that the American does not like a heavy, strong smelling and pronounced flavored olive oil such as they themselves like and this is the reason that the olive oils imported in tin have not made a success in this country.

It takes skilful selection on the part of those thoroughly acquainted with American taste to obtain extra quality olive oil that will please the American palate. In this connection, it should be said in justice to the American public that the olive oil which appeals to them is the highest grade of olive oil obtainable and is for that reason not obtainable in unlimited quantities.

The three enemies of olive oil are light, air and heat, and for that reason it is to be preferred in tin to glass and should always be kept stored under temperature conditions.

Many of our boys went to France with the A. E. F. without ever having tasted olive oil. Over there, they learned what an essential part of the diet of the Latin races olive oil is and many of them came back "thoroughly sold" on the advisability and satisfaction of adding olive oil in some form or other to their daily diet, which may account for some part of the large increase in olive oil importations this year.

# Special Problems in the Vegetable Oil Industry

*Report of a Paper Read Before the Chicago Society of Chemists by Glenn H. Pickard*

Vegetable oils are found in almost every land and climate. They may be obtained from nuts, from seeds, from beans, from fruits. And while there is a certain general similarity in the methods of obtaining and refining these oils, each is a little different from all the rest, and tends to have its own idiosyncrasies, and to present its own set of problems to the man who wants to get it out. Glenn H. Pickard discussed interestingly the general methods and suggested a number of the special problems of the industry at a meeting of the Chicago Chemists recently.

Practically all of the oils are best obtained from their sources by squeezing them out under pressure; but this is not so simple as it sounds. Will simply running the seed between heavy rolls, under pressures up to five tons, be sufficient? Or will it be necessary to use an hydraulic press to obtain the required oil yield? Sometimes the two methods are used successively. The important thing is the yield of oil; the other product, the "cake" left after the oil is expressed, may be valuable as a feedstuff for cattle or hogs, or only as a fertilizer, in any case, the oil left in it is worth much less than its value as oil.

### Steaming the Seeds

The yield of oil is increased by steaming the seeds before pressing, this treatment presumably softening the cell walls and allowing the oil to escape more readily. But if this treatment is carried too far, the quality of the oil obtained is impaired.

Again, when the hydraulic press is used, different modifications are required for different oils. Bags of flax seed keep their shape well under pressure, and an open press can be used. Some of the other seed have, to a high degree, the property of "crawling" or spreading out under pressure and require special means for confining them during the pressing. The reason for the difference? No one seems to know.

After as much oil as possible has been removed by pressing, the press cake remaining still contains 5 or 6 per cent, or often more, of oil. Of this, 80 to 90 per cent can still be recovered by extraction with gasoline, benzol or other volatile solvents. After extraction, however, it is quite difficult to remove the solvent from the cake sufficiently completely to leave a desirable cattle feed; and the oil obtained by extraction retains flavors which practically preclude its use in food products, though it is still good soap material. In England, Mr. Pickard said, extracted oils are used to some extent in food products. But he was inclined to think that this was explained less by better technique in the British oil industry, than by a less exacting taste on the part of the British public.

One of the things emphasized both in the paper of the evening and in all the discussions of it, was the serious need for chemical control in all transactions in oil-bearing materials. At present general appearance and odor seem to be about the only tests used. Analysis before buying would have been practically useful in this year's flax seed crop, which yields on pressing only some 17.5 pounds of linseed oil per bushel of seed, as against a normal average of 19 lbs. The chemist, however, will have his difficulties, for even when conditions of purchase are such as to permit sending a sample to the laboratory, the value of the oil depends on its quality as well as on its quantity; and here chemical tests do not give so definite an answer.

### Refining Process

Once the oil has been obtained, it is usually necessary to subject it to some sort of refining process in order to make it of as high a grade as possible. Other things being equal, it is usually more profitable when possible to turn out an edible grade of oil; but the condition of the crude oil may be such as to make this impossible. The commonest refining method consists in principle of adding alkali to neutralize the fatty acids present, and allowing the soap thus formed to settle out, along with any foreign substance it may have absorbed. In practice, this refining is distinctly an art. Sodium silicate and various other substances are frequently used in addition to the alkali; and the loss on refining, the color of the product, and its flavor, depend in very large degree on the skill of the operator.

Frequently the color and taste of the oil are further improved by bleaching with fuller's earth, followed by blowing (deodorizing) with superheated steam.

In discussing the paper, Dr. C. L. Alsberg echoed the opinion of Mr. Pickard that oil-bearing seeds should be bought and sold on analysis. In view of the practical difficulties of getting these analyses made by the traditional methods, the Bureau of Chemistry at Washington, he said, had been attempting to develop a rough but rapid field method for estimating oil content from the specific gravity of the seeds. This work had not as yet led to very satisfactory results.

### Dr. Alsberg Speaks

Dr. Alsberg spoke highly of the merits of soybean presscake and copra presscake as cattle and hog feeds. Copra is particularly rich in growth-promoting vitamines which many of the other presscakes lack. The soybean cake contains proteins of particularly well balanced composition, supplying economically amino acids, such as lysine and histidine, which are essential to growth, but which are not present in sufficient quantity in many of the common feed-stuffs. The present tariff law practically prevents (apparently by oversight) the importation of soybeans for pressing; but copra could and should be imported in larger quantity and pressed in this country, so that the presscake would not be wasted. He was also enthusiastic about the possibilities of bread made by adding to ordinary wheat flour 10 per cent or so of "peanut flour," the ground cake obtained from pressing peanuts.

# SPICE TRADING HAS INTERESTING HISTORY

WE often speak of monopolies as a strictly modern development of business and yet when we come to look into the history of some of our food products, especially the spices, we find that they were the particular products which hoarders and monopolists of centuries ago were wont to regard as their very own property.

When we are feeling like grumbling at the price of spice for instance, just remember that at one time this product was monopolized almost exclusively as a luxury for the noble or very rich people. First the Portugese and then the Dutch held the entire output under their thumbs and they regulated the price and the shipping to suit themselves.

Apparently the Plantagenet monarchs were partial to spice—their Household Records contain many entries of sums paid for ginger, cinnamon, nutmeg, mace, cloves, and pepper. Cinnamon, or "cannell," as it was then called, seems to have been a particular favorite in Mediæval times. It was fairly well-known in Europe before the Crusades; Pliny, Herodotus, and other classical writers refer to it, and it is mentioned several times in the Bible. From very early times, it was used not only in cookery—the flavor seems to have been much esteemed in olden days—but was also used medicinally, as it has carminative, stomachic, and slightly astringent properties.

### In Middle Ages

In the Middle Ages it was chiefly imported from Arabia, although it does not appear that the beautiful "cinnamon laurel"—Cinnamonum Zeylanicum—whose dried inner bark furnishes this spice—grew to any great extent in that country, which was regarded in those days as "the Land of Spice." Probably Arabian merchants brought this and other aromatic products of the far East to various Levantine and Egyptian ports, where it was sold to European merchants, who conveyed it to Italy, Portugal, Spain, and France, and eventually the fragrant bark reached the English Isles, where it was used to flavor all sorts of dishes, from "roste pigges" and "roste egrets" down to the "minced pyes," and other sorts of pastry, which appeared on the table on festive occasions. An old recipe for one sort of these "pyes" describes them as "faire lowe coffins, filled with figs, cut dates, fresh salmon, or eel, boiled in wine, currants, saffron, salt, cloves, pepper, cannell, mace, powdered ginger, raisins, fried in oyle, and cast thereto." The "coffins," as pies were often called, were to be covered with the same paste, and sprinkled with saffron and almond milk, before they were placed in the oven to bake. They must have been highly indigestible, and would be far from attractive to modern tastes!

The cinnamon laurel grows chiefly in the great forests of Ceylon, and is a handsome tree, allied to our own laurels and bays, to the Portugal laurel, the camphor-tree, the cassia, and other aromatic plants of the Order of Lauraceae. Cinnamon is imported into this country in closely-rolled quills, about an inch in circumference, dry, brown, very brittle, and much perforated. Many Eastern races use it to a very great extent as a flavoring, and are also fond of chewing the dry bark, as the Gurkhas and other Indian troops did during the War, when they highly relished a present of cinnamon bark, which, doubtless, served to warm them during the damp trying cold of their first winter in the trenches of France and Flanders.

### Cinnamon from Ceylon

Cinnamon is still largely cultivated in Ceylon, though not to the same extent as it was in the days when the cinnamon gardens of Colombo, Galle, Maduro, Nejombo, and Barberyn were world-famous, and the Dutch held the monopoly of the trade. Each of these gardens was from fifteen to twenty miles in circumference, and was most carefully tended. Though they were not planted till about 1710, by 1796, when Colombo was taken by the English, they produced annually over 400,000 pounds of this spice, which was very expensive at the time, for the Dutch East Indian Company, who held the entire trade, were most jealous of their rights, and restricted the production to a certain quantity, so that it should not become cheaper, and were very tyrannical in their methods of restricting the growth and sale of cinnamon. No one was allowed to plant or peel the tree, and the selling or importing of a single stick was treated as a capital offence. Nowadays, the cinnamon-laurel is cultivated in many tropical lands, the price is much reduced, and the spice is no longer the chief and most lucrative product of Ceylon, while the far-famed cinnamon gardens, whose beuaty, luxuriance, and aromatic odor was extolled by countless travelers are now neglected to a great extent; they have been partly sold to private individuals but have almost reverted to a wild state; even then the shrubs are very beautiful, though now they are much over-grown by creeping plants. Of course, there are still many smaller cinnamon-gardens in Ceylon, which are admirably kept, and are still very profitable. The trees often attain a height of forty or fifty feet, but the best spice is obtained from the shoots that spring from the roots; so the growth is often restricted to ten or twelve feet.

### Dutch Extermination

In the old days, when the Dutch had driven the Portuguese from Ceylon, and the Moluccas, or Spice Islands, they did their best to exterminate such trees as the cinnamon-laurel, the nutmeg-tree, the clove, and the various species of pepper, except in the special spots where they wished to cultivate them, hoping thus to secure the monopoly of the trade for all time. Anyone detected smuggling spices was most severely punished, and the natives were treated with great harshness.

When spices had accumulated in too large quantities, they were often thrown into the sea, or burnt. M. Beaumaire, a French traveler, relates that in June, 1760, he saw near the Admiralty at Amsterdam, a huge blazing pile of cloves and cinnamon, valued at four millions. He was told that an equal quantity was to be burnt next day. The whole air was fragrant with the spicy perfume, and the essential oils, set free by the great heat, distilled from the pile, and flowed out in an aromatic stream, but no one was allowed to collect any of it, or to rescue even a pinch of the precious spice from the flames, on pain of heavy punishment.

In spite of all these precautions, however, the seeds of various spice-trees were brought to other lands, some smuggled away by travelers, some carried by the birds. Many of the Dutch possessions in the East passed into other hands, and the spice-monopoly came to an end.

Perhaps cinnamon is less used in cookery and confectionery than it used to be in olden days, though a good many cakes and sweetmeats are still flavored with it. We have retained the Latin form of the name "Cinnamonum"—Hebrew "Kinnamon," while the French and Italians respectively term it "Cannelle" and "Cannella."

In Ireland a favorite sort of sugar-stick is flavored with this spice, and is generally striped with pale brown and pink, and "cinnamon-drops" are also popular, but here, as everywhere else, the cheaper peppermint has rather usurped the place of cinnamon.

## Sweet Substitute for Sugar

MALT sugar sirup is a brand new sweet which has arrived on a commercial scale at the psychological moment to relieve the sugar shortage, say the specialists of the Bureau of Chemistry, United States Department of Agriculture, who have investigated various substitutes for sugar. In addition to being a sweet, malt sugar sirup has a delicious flavor somewhat resembling that of honey, which adds much to its palatability and value as a sugar substitute.

While malt sugar has long been known to chemists, its production on a commercial scale is only beginning. Two factors have stimulated its production recently. The shortage of sugar has developed a market for it, and the recent prohibition law has made available both the raw material and the machinery needed for its manufacture. Malt sugar sirup is made from the same grains as beer and may be made from corn or potatoes or any plant containing starch. Barley, which was used until recently in the manufacture of beer, can be used now to produce malt sugar sirup.

Breweries, with very little change, can be used and are now being used for its manufacture. Up to a certain point the process for making malt sugar sirup is the same as the process for making beer. Evaporating pans is the principal additional equipment required by breweries to become malt-sugar sirup factories.

Malt sugar sirup looks very much like maple sirup. It can be used for everything that cane sugar is used for. While its use on the table may not be quite as convenient as sugar, it is a most excellent substitute for table use when sugar is not to be had, as it not only provides sweetness but is equal to sugar in food value. For cooking and baking purposes and for making candy it is not only equal to sugar in convenience and food value, but is superior for some uses because it will not so readily crystallize.

Malt sugar sirup is now being sold in large quantities to commercial bakeries and candy and soft drink manufacturers, who use it in place of sugar. The wholesale price as quoted in recent advertisements in trade papers and elsewhere is from 7 to 9 cents per pound in barrel lots. Many retail grocers do not handle it yet, because there has been little demand for it on the part of housewives. Grocers can now obtain it and no doubt will be glad to do so as the demand for it increases. Housewives can well conserve their dwindling supply of sugar by using it in cooking, baking, and home-made confections, and even on the table for sweeting coffee, oatmeal, and desserts. It can be used for every purpose for which sugar is used. If the housewives want it, the grocers will get it.

Although malt sugar sirup is being called upon, so far as household use is concerned, merely as a pinch hitter in the present emergency, the specialists expect that it will make such a batting average that it will hereafter have a regular place in the batting order. This is a case where the substitute makes so good that the regular, whose place it takes, may have to warm the bench. While it is not likely that this new sweet will replace sugar for table use in normal times, it undoubtedly will make a place for itself in the household as it is doing in the manufacture of food products. It is an excellent, wholesome sirup, and on account of its delicious flavor, is superior to sugar for some purposes in cooking and baking.

Aliens to the number of 1,300,000 in the United States are planning to desert this country for their homeland and they will take with them approximately 4,000,000,000 American dollars. These facts are disclosed in a report by Ethelbert Stewart of Chicago, director of the investigation service of the Department of Labor. It is estimated that each alien will return with approximately $3,000.

## Do You Know the Cheap and Nutritious Bean?

Beans, though higher in price than they were several years ago, are still among the cheaper foods that can be bought today. They are one of the cheapest sources of protein and may be used to help supply this valuable food constituent in the diet, according to United States Department of Agriculture specialists. They are known chiefly as a meat substitute dish.

A cup of baked beans, in which a third of a cup of dried beans are used, furnishes as much protein as a quarter of a pound of sirloin steak. Obviously the third of a cup of dried beans is much the sheaper to purchase. A pound of beef as purchased usually has some refuse in the form of skin, bone, and gristle, while a pound of beans has practically no refuse. From this standpoint, therefore, as well as the difference in price, the housewife who finds her food allowance growing low will do well to use beans often in place of meat.

The cheaper legumes, beans, peas, etc., should not be depended upon as the sole source of protein for a great length of time. Milk, cheese, eggs, or meat should furnish some of the protein in a week's dietary.

There is little difference in food value among the many common varieties of beans, with the exception of the soy bean, which is richer in protein and in fat than the ordinary beans. All legumes should be thoroughly cooked. Long cooking at moderate heat is best.

## Followed Instructions

The attorney for a man on trial for murder, it is said arranged with one of the jurymen to hold out, no matter what happened, for a verdict of manslaughter. The jury was out a long time, and the prisoner was beginning to lose hope, when it finally brought in the manslaughter verdict.

The attorney sought out the one juryman and congratulated him on the successful way in which he had secured the verdict wanted.

"Yis," was the reply, "it was some job. All the rist of them bull-headed guys kep votin' to acquit him."

# It is Not Difficult to Plan and Prepare a Balanced Ration

THE term "Balanced Meal" has been coming strongly to the front during the last year as a result of the later developments in the knowledge of human nutrition and the average person who has not studied food subjects takes fright at the term because they believe that a college education is necessary before one can know how to serve a "balanced meal."

As a matter of fact just a few moments of careful study of the facts which scientists have learned by years of experimenting is all that is required to gain a fairly good idea of what constitutes a "Balanced Diet." Of course, after the study a little application of common sense is necessary.

Activity necessarily makes two demands: *Material* to build up and repair the wear and tear caused by this activity, and *fuel* to burn, making activity possible by the transformation of heat into energy or power to do work. A distinct, repairing material, namely, *protein,* found abundantly in meat, eggs, cheese, nuts, etc., and two distinct groups, namely, *carbohydrates* (starches and sugars) and *fats* furnishing *fuel* for our activities, are needed. These last-named groups, since both are fuels, are interchangeable, but we economically draw from both sources.

There are still other elements the nature of which are not so well known. All we know about them is that they are necessary to growth of the human animal and that their absence from the diet causes not only failure of growth but diseases which are defined as "Deficiency Diseases." These elements are called Vitamines.

A properly balanced meal must, therefore, furnish *protein* (building material) and carbohydrates and fats (fuel material), and vitamines.

As a guide, a table giving foods rich in each of these groups might hang in the kitchen near the recipe books, or better yet, be stored away in the brain of the housekeeper and made use of three times a day in planning her menus:

| FOODS | RICH IN | VALUE |
|---|---|---|
| Meat<br>Fish<br>Eggs<br>Cheese<br>Milk<br>Almonds<br>Pine nuts | Protein and fat | Furnish<br>(1) Tissue-building material<br>(2) Fuel |
| Peas<br>Beans<br>Lentils<br>Oatmeal<br>Wheat<br>Peanuts | Protein and carbohydrate | (1) Tissue building material<br>(2) Fuel |
| Butter<br>Cream<br>Meat fats<br>Egg yolks<br>Olives<br>Vegetable oils | Fats | Fuel |
| Sugar<br>Candy<br>Honey<br>Molasses<br>Ripe fruits<br>Starchy vegetables as<br>Potatoes<br>Corn<br>Cereal grain | Carbohydrates | Fuel |

But the problem of a properly balanced dietary is not solved yet, and it is here that the failure is often made. A diet containing pure protein, fat and carbohydrate would cause starvation even more quickly than if all food were withheld. A balanced diet must contain *mineral salts,* or ash, yielding an abundant supply of iron, phosphorus, calcium, magnesium and potassium. What foods supply these salts? Here, again, a tabulated list may be made use of, that the housekeeper may be sure she is including these essentials in her menus:

FOODS SUPPLYING

| IRON | CALCIUM | MAGNESIUM |
|---|---|---|
| Spinach | Milk | Meat |
| Dried beans | Dried peas | Peas |
| Dried peas | Dried beans | Beans |
| Whole whe't | Celery | Milk |
| Meat | Cabbage | Prunes |
| Egg yolks | Parsnips | |
| Prunes | Citrus fruits | |
| Raisins | | |

| PHOSPHORUS | POTASSIUM | VITAMINES |
|---|---|---|
| Meat | Potatoes | Milk |
| Milk | Parsnips | Eggs |
| Egg yolk | Cabbage | Cabbage |
| Whole wheat | Turnips | Spinach |
| Dried peas | Apples | Lettuce |
| Dried beans | | In fact all green leaf foods |
| | | Unpolished Rice |

A third suggestion in planning your menu is to see that *bulk,* ballast or a certain amount of roughage is supplied. While there is little or no real food value in this, its function is important in regulating the digestion, and the eliminating processes of the body. Fresh fruits and green vegetables are the chief sources for this filling material.

At first it may seem bewildering to attempt a selection of food for a meal that will supply protein, fat, carbohydrate, and all the mineral salts, and bulk, but this can be done even with the simplest of menus. Some simple menus will serve to show how this may be done:

MENU I. (Breakfast).
Oatmeal with whole milk.
Prunes.

Here the oatmeal furnishes the necessary protein and carbohydrate. The milk adds fat and is also rich in protein and carbohydrate. Iron is supplied by the prunes; calcium and phosphorus by the milk; magnesium by the oatmeal, and potassium by the prunes. The proper amount of bulk as well, is furnished by this menu.

MENU II. (Luncheon).
Baked Beans. Brown Bread.
Baked Apple.

In this menu all the requirements are satisfied also, yet note the simplicity of it.

MENU III. (Dinner.
Old-fashioned Boiled Dinner.
Meat. Potatoes. Cabbage.

This one dish alone gives the balance required and is a meal in itself.

In contrast to these most simple yet balanced meals examples might be given of meals which seem to have much more food value, but are poorly balanced.

## Canner's Convention

National Canners' Association, annual convention, Cleveland, Ohio, week commencing January 26, 1920; headquarters, Hotel Statler.

Canning Machinery and Supplies' Association, annual convention, Cleveland, Ohio, week commencing January 26, 1920; headquarters, Hotel Statler.

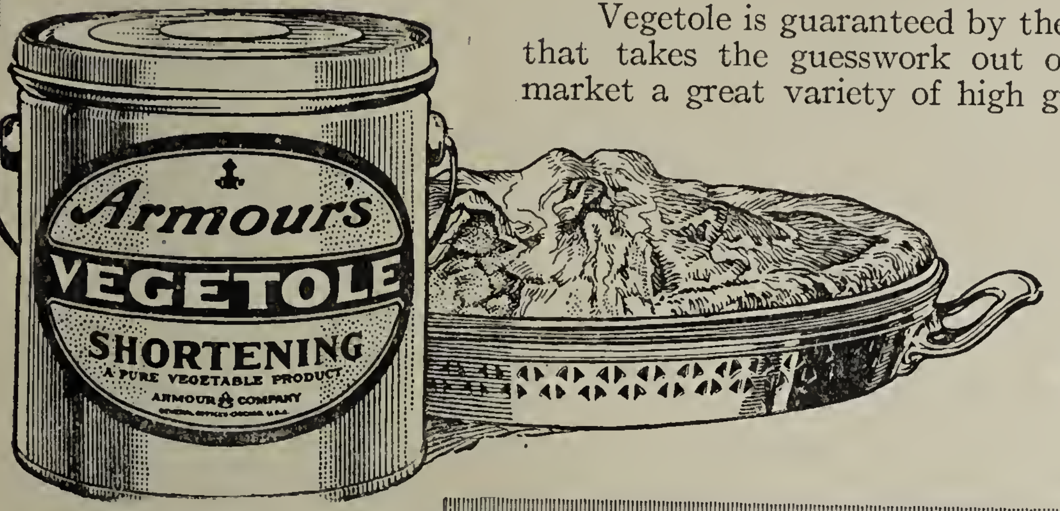
National Canned Foods and Dried Fruit Brokers' Association, annual convention, Cleveland, Ohio, week commencing January 26, 1920; headquarters, Hotel Statler.

FOR
FLAKY
*Christmas*
PIES

Armour's
VEGETOLE

Made only from pure vegetable oil, carefully chosen and highly refined, by a special Armour process. Because Vegetole is soft in texture it takes up flour rapidly, easily and evenly—goes farther. Pastries prepared with Vegetole are unusually light and easily digested because Vegetole melts at a temperature lower than body temperature.

Vegetole is guaranteed by the Armour Oval Label, the identification that takes the guesswork out of food buying. Under this brand we market a great variety of high grade foods.



**Ask your dealer for Vegetole—
"the foundation of good pastry."**

Armour's
CHICAGO

487 9

## City and Country Meat Consumption Compared

That the farmers are the chief pork and poultry consumers, when a comparison is made on a per capita basis, while the city dwellers eat a greater proportion of beef, veal and mutton, is shown by the estimates of the per capita consumption of each kind of meat and poultry by the urban and rural population, which have just been completed by the Bureau of Crop Estimates. This is the first adequate information concerning the meat consumption of various sections of the country and of the city and country population that has ever been obtained.

The total meat consumption per capita is 9 per cent greater in the country than in the city, and excess in varying degrees is found in every one of the customary geographic divisions. Beef consumption is nearly two-thirds greater in the city than in the country.

In both veal and mutton consumption per capita, the city exceeds the country, veal by 119 per cent and mutton by 43 per cent, and there is a varying preponderance of the city consumption in all sections, except that mutton consumption per capita is greater in the country in the West; that is, between the Great Plains and the Pacific Ocean. If beef, veal and mutton are combined, the city exceeds the country in per capita consumption by two-thirds.

What the country loses in comparison with the city in the per capita consumption of beef, veal and mutton, is more than offset by what it gains in the consumption of pork and poultry. These are the meats, if poultry may be called meat, that are more especially adapted to the country than the others. The per capita consumption of pork and poultry in the country is everywhere above that in the city, and for the United States as a whole the country is higher by nearly two-thirds for pork and more than one-half for poultry.

Expressed in another way, the city consumes more beef, veal and mutton per capita than it does pork and poultry by 9 per cent, but the country consumes more pork and poultry per capita than the other meats by 150 per cent, and in the city, pork and poultry are 48 per cent of the total meat consumption (including poultry), and in the country 71 per cent.

Beef, veal and poultry consumption per capita are higher in the North than in the South, but in pork consumption the South is higher. The West is above the other sections in beef and mutton consumption and is barely below the leading section, the North Atlantic, in veal consumption, but it is lowest in poultry consumption, and except in comparison with the North Atlantic States, is lowest in pork consumption.

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## Advice to Young Men

The high cost of living is not the only problem before America, according to Vice President Thomas R. Marshall. The high cost of leisure is also a menace he says. "One of the old ideas of the republic was that the limit of striving for success was the limit of capacity and endurance" declared the Vice President recently. "The real evil which we are confronting today is the high cost of leisure. I speak in a censorious way because I am myself the laziest of the lazy.

"I only beg the thoughtful consideration of younger men who have the good of the republic at heart, seriously to consider the problem as to whether the only way in which to meet the increasing difficulties of American life is not by additional striving TO PRODUCE MORE, TO EARN MORE, TO ECONOMIZE MORE AND TO SAVE MORE."

# Hearing on the Calder Bill

THE Calder Bill, which is now before the U. S. Senate, and which, if passed would operate to nationalize control over all foods and drugs shipped in interstate commerce, came up for hearing before the Committee on Commerce of the Senate on October 29th. The text of this bill was printed in full in our October issue.

Strong recommendations for the passage of the bill were made by representatives of a number of organizations of food producers and distributors and manufacturers of drugs, while on the other hand, opposition to its passage was voiced by Dr. Alsberg, chief of the Chemistry Division, U. S. Department of Agriculture, and by William M. Williams, solicitor for the Department of Agriculture.

Dr. Alsberg spoke briefly, pointing out that, in his opinion, the Federal Foods and Drugs Act is not strong enough to carry the burden which the passage of the Calder Bill would place on it and that as a result many states where good state control laws are now in force, would be deprived of the protection which they have provided for themselves in their own way.

He sympathized with the manufacturers of foods and drugs which are shipped in interstate commerce, on the difficulties of doing business under so many and such varying state laws and said that he is heartily in favor of uniformity of legislation and that he is doing everything that can be done in his department to promote such uniformity.

"I personally believe that the enactment of this bill into a law would create certain undesirable results," he said, "and it would make it impossible for those states that happen to have laws that are more perfect, in that they furnish greater protection to the ultimate consumer than the Federal laws do, to enforce them."

Thomas E. Lannen appeared as General Council for the National Confectioners' Association and in a lengthy speech recited some of the many contradictory laws passed by the various states to control the same product or same class of products, and told of the impossibility of manufacturers conforming to all of these laws. He explained the present scope of the Federal law as follows:

"At the present time the field covered by the National food law is limited as follows: So far as the District of Columbia and the Territories and possessions of the United States are concerned, the national food law covers the whole field of the sale of food products to the consumer. But so far as the states are concerned it does not cover the whole field of the sale of food products to the consumer, the situation being that—

It covers the field of the delivery of food for shipment in interstate commerce.

It covers the field of the shipment of food in interstate commerce.

It covers the field of introduction of food into any state.

It covers the field of the receiving of food shipped in interstate commerce and delivering it for pay or otherwise in the original unbroken package (such as shipping case) in which the food has been shipped in interstate commerce.

Further than this the national food law, by its terms, does not go.

The object of the Calder Bill is to extend the field covered by the national food law so as to cover the field between the point where the jobber places the goods in the hands of the retailer in the unbroken shipping case and the point where the retailer, after having broken the shipping case, places the individual package into the hands of the ultimate consumer."

He showed how one state will absolutely prohibit the sale of products which contain certain ingredients while every other state in the union and the national law permits the use of these ingredients. He also told how the labeling laws of one or two states compels the manufacturer to have printed different labels for the different states or refrain from selling his product in some of the states. He told of the danger to dealers in certain states of being arrested and the goods seized because some shipper sent into that state goods which were never intended to be sent there although these goods might conform in ingredients and labels with the laws in other states and with the national laws.

He made a very strong case for the manufacturers who have long realized the difficulties of doing business under the present diversified food laws of the forty-eight states.

Others who appeared in favor of the passage of the Calder Bill were H. B. Thompson, general council, Proprietary Association, Washington, D. C.; W. L. Crounce, general representative of the National Wholesale Druggists' Association; Arthur C. Spencer, representing the National Wholesale Grocers' Association; Dr. Sydney May of Cleveland, Ohio, Richard H. Bond, representing the Flavoring Extract Manufacturers' Association of Baltimore; William Parker Jones, representing the Association of American Manufacturers of Corn Products; Orville D. LaDow, representing the National Association of Manufacturers of Fruit and Flavoring Syrups and the National Preservers and Fruit Products Association.

Mr. Williams, the solicitor of the Department of Agriculture, submitted a written opinion regarding the constitutionality and other points concerning this bill. His letter in part is as follows:

"From what has been said, you will readily observe that the question is not only difficult but very doubtful. It is impossible to predict with any degree of accuracy what might be the views of the Supreme Court as to the constitutionality of the bill in the circumstances. However, if it were so drafted to create a complete Federal labeling system, giving the states full Federal protection where they now have local power, and the bill when so drafted would carry a legislative finding of necessity, I believe it might be upheld under the principals of the McCulloch case and probably be within the decision in Veazie vs. Fenno (8 Wall, 533).

The department for practical reasons does not approve the bill.

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For your liver's sake drink plenty of water; six glasses a day are not too many; and eat plenty of fruit and vegetables. Pills may have a quicker effect, but their effect is not so beneficial or lasting.

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"I hear that restaurant has hired an efficiency engineer."

"Yes; the owner wants to know how to get six hundred sandwiches out of a pound of cheese, instead of three hundred he's getting now."—*Judge.*

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Many men who can not do their own cooking feel perfectly capable of roasting the cook.

# HEBE—Its Food and Economic Value

TO the food expert who looks farther than mere results roughly arrived at, before passing judgment on a food product—to the chemist who takes an article of food to pieces and with test tube and microscope examines each of its component parts before giving his verdict as to the presence or absence of body-building elements, Hebe is more than a cooking compound, it is one of the best examples which we have today of the new science of the synthetic creation of food — the science which is destined to be one of the big factors in the solution of the world's food problem.

Hebe is pure skimmed milk evaporated to double strength enriched with refined cocoanut fat. It is not a simple mixture, but is produced by a highly developed process, which results in the cocoanut fat being emulsified with the skimmed milk, creating a food product that is wholesome and nutritious—serving as an economical auxiliary to the daily milk supply for use in cooking, baking and with coffee.

Every 100 pounds of Hebe contains the food elements of 210 pounds of pure skimmed milk and 7.8 pounds of highly refined cocoanut fat.

Skimmed milk, which heretofore has been greatly neglected as a human food, contains the greater part of the food value of the whole milk. For direct consumption it is not palatable, nor is it a well-balanced food, because it lacks almost entirely the fat constituent. It contains the highly digestible proteins and other elements which should be incorporated in our cooked foods, but alone it lacks the finely-divided fat which in cooking gives the milk a shortening value and which enriches and makes more palatable the dishes prepared with it.

The use of pure fat for shortening is not the best method of introducing this element in cooked foods, as it tends to soak in and mass the other ingredients. It has long been recognized that rich milk or cream is better for cooking, because the fat in milk or cream is so finely divided that it mixes more thoroughly and evenly than does pure fat, such as lard or cooking oils. Hebe is made and marketed for cooking purposes, and as cocoanut fat is cheaper than butter-fat, while possessing as great caloric and shortening value, and as this fat is contained in Hebe in a finely-divided condition, just as butter-fat is found in milk, Hebe is an economical and a nutritious cooking compound.

Hebe is labeled with the utmost frankness as to its ingredients and uses. The label tells the whole story in letters large and legible. This label has been approved by the leading food officials of the country. Hebe is advertised as it is labeled—honestly and frankly—"A Compound of Evaporated Skimmed Milk and Vegetable Fat"—for culinary purposes.

The economic value of Hebe lies in the fact that it brings to humanity directly the food value of skimmed milk, which heretofore was so largely lost through its being fed to animals.

Government reports show that if each man, woman and child in this country is to receive daily the amount of whole milk which Science has determined is essential for the proper development of our race, there is already a shortage of about 25% in our milk supply. We should have dairy herds numbering over thirty-one million cows instead of about twenty-three million cows, which we now have.

At the same time, government reports show that, from the milk devoted to butter-making, there are left on the dairyman's hands annually, approximately thirty billion pounds of skimmed milk—a most valuable and essential food—yet only about two percent of this is used directly for human consumption, while about 98% is fed to stock or thrown away. In other words, fully one-third of the total food value of our dairy output fails to reach the consumer as food in the most direct and efficient way.

In the light of the foregoing facts it will be conceded that any product which helps to conserve the supply of whole milk for direct feeding, and which tends to reduce the wastage of skimmed milk, should be regarded from an economic standpoint as of great value.

If a product such as Hebe is used in cooking and baking, large quantities of whole milk now used for these purposes will be released for direct feeding, and at the same time the use of a product such as Hebe will bring to the human dietary in the most direct and economical way, vast quantities of skimmed milk not now utilized to the best advantage.

Thus the coming of Hebe, inaugurating as it does the new era in which the creation of synthetic foods will play a large part in the solution of the food problem, offers a direct and economical means of conserving our whole milk supply and of saving much of the valuable skimmed milk for direct consumption.

**Additional information and a booklet of recipes will be sent upon request to The Hebe Company, 3209 Consumers Building, Chicago.—Advt.**

# J. L. McLaughlin Becomes Superintendent

J. L. M'LAUGHLIN, who for two years has served as assistant commissioner of Foods and Dairies of Illinois, has been appointed by Governor Lowden to the position of superintendent of the department, to succeed John B. Newman, who resigned December first.

Mr. McLaughlin's career and the excellent record which he has made not only in his work in the department but in other lines of activities in the food field makes his appointment particularly fitting and he takes up his new responsibility with a fund of knowledge and years of experience that should assure the state of the services of an executive in the foods and dairies department of unusual ability.

Prior to 1906 he was field instructor in the dairy division of the University of Illinois. He resigned this position on July 23rd of that year to become the first State Food Inspector of that state. On October 4th of the same year he was appointed State Health Inspector. He served with the department until 1910, when he resigned to associate himself with a butter and cheese manufacturing business.

**J. L. McLaughlin**

Two years ago, at the urgent request of Mr. Newman, Mr. McLaughlin resigned his business connections to again take up state work as assistant to commissioner. He assumed charge of his new position on December 1st.

### Geo. P. McCabe's Daughter Dies

Nell McCabe, the sixteen-year-old daughter of Geo. P. McCabe, former attorney for the department of agriculture, died at the family residence, in Evanston, Ill., on November 19, after an illness of several months following an attack of influenza.

## Price Control Said to Be Futile

ARBITRARY control of prices by national, state or municipal authorities will not serve to solve the problem of the high cost of necessities, according to Michael Friedsam of New York's Fair Price committee. Mr. Friedsam is chairman of the subcommittee on the prices of clothing and shoes, is president of the firm of B. Altman & Company and as a Colonel of State troops purchased millions of dollars' worth of supplies for the state and national forces during the war.

"The crying need everywhere is production, and more production," said Mr. Friedsam in his recent report. "The solution of our problem will not come from debate or proclamation. It will be solved by a combination of just two things—work and thrift. Work, sincere and earnest on the part of every single one of us whatever our station, and thrift on the part of the whole public. Unless we can check the wave of reckless extravagance which seems to possess a great part of the public, I am afraid that efforts on the part of such committees as this will be futile."

In connection with wise and careful buying, regular saving and investment in safe government securities such as War Savings Stamps and Treasury Savings Certificates, which is being urged by the Savings Division of the Treasury Department, Mr. Friedsam declared that profiteering if and when discovered should be unmercifully dealt with but that the public should not be fed on false hopes or promise of immediate price reduction.

He added that high labor costs, subnormal transportation facilities, constant interruption of production by industrial disputes and a certain relaxation of the world at large were contributing factors.

## Changes in Food Production

Forty years ago, says James Foust, Director of the Bureau of Foods, Department of Agriculture, outside of the two large cities, namely, Pittsburgh and Philadelphia, practically every home in the State of Pennsylvania was a food-producing establishment. The people raised their own pork, there were few without chickens to furnish an abundant supply of eggs. All had their home gardens where they raised their own vegetables and berries and fruits, and it was not uncommon to see buried cabbage and apples for winter use. Fruits and vegetables were canned in large quantities and put away for winter consumption. Flour was purchased in the fall. There was the butchering day, hogs were butchered and pork pickled and smoked. Those homes bought very few groceries; in fact, the grocery store in those days was a small institution.

All these things have been changed and the small communities have turned their attention from the home gardens to the large pay received in the industrial establishments. Many persons thought it useless to worry along with the garden with money plentiful and food purchasable. In fact, many homes have gone out of the food-producing business, and the consumers have become more numerous.

Grocery stores to-day are big, thriving institutions. They are the storage room and refrigerators of the homes. The baking of bread is almost a thing of the past for the housewife and everything for the meal is bought in the can, package or in bulk form.

With this change in the manner of food supply of the people, which has so materially decreased the army of producers, Pennsylvania has been called upon to face the issue of between three and four million more consumers.

Large quantities of foodstuffs are being exported to foreign countries.

The cost of living in times like these can be greatly reduced by consuming only those things which are absolutely necessary and discontinuing the use of many things which we could well do without.

---

Breathing dead air, overeating, fatigue, lack of exercise and exposure to cold are the allies of cold germs.

*Container*

*Service*

It's a high form of public service today to suggest that the retailer of foods use Riteshape Wooden Dishes for packaging bulk provisions. Laboratory reports prove it. We will send you these reports upon request.

# Corn Is Still King of Cereals

AT a convention of the American Corn Millers' Federation held in Chicago in November Dr. Carl S. Alsberg, Chief of the Chemistry Division, U. S. Department of Agriculture, confirmed the truth of the old adage that "Corn is King of the Cereals."

In his address Dr. Alsberg said that feeding experiments lasting over several years had been performed in his department by feeding rats on cereals. These experiments indicated that rats fed on corn plus protein lived the normal span of life and developed normally in every way to full health and vigor. This result could not be attained, he said, when other cereals were fed exclusively.

Arguing from the results of these and other experiments and observations he urged that every effort be made to make corn a more important factor in the human diet.

"The human race is eating too large a percentage of meat," he said. "If less meat were used and more cereals, particularly corn, we would be a healthier and more prosperous race. Too much corn is being fed to stock and the food value of this is largely used up by the animal in its activities so that the return in meat is actually less than the amount of food fed to the animal."

He said that if we cut our meat consumption by one-fourth and increased our consumption of cereals, now fed to stock, by one-fourth, the farmer would realize more quickly on his investment and the human race would be greatly benefited.

He urged that children should not be fed so much meat but that they should be given more cereals with whole milk, not cream.

**President Krause**

Retiring President Charles A. Krause pointed out in his speech that while corn is regarded as one of the most valuable cereal foods that only a fraction of the corn produced in this country goes directly to humanity as food. He gave some interesting facts and figures which proved that the high cost of living could be given a severe wallop if more corn and less of the more expensive foods were used. He said in part:

"The high cost of living is the greatest present factor in our present national difficulties. Every corn miller should contribute to a means of enlightening every man, woman and child in the facts that corn flour, hominy, grits, meals and flakes are to be had practically everywhere at not exceeding .06 cents per pound as compared with .40 cents for meat, .65 cents for butter and the same approximate excess costs of all animal fats.

*Dr. Alsber paid a high tribute to the food value of corn in a speech which he recently made before the Corn Millers' Federation convention in Chicago. He told of experiments whose results indicate corn's right to be called the "King of the Cereals."*

**Not Used Enough**

"Corn mill products are used for food in this country at the ratio of about 81 pounds per capita, while meat alone averages 181.55 lbs. per capita and not including butter, eggs and milk, the other high cost staple foods. If brought to a one day average for the average family of five, meats are costing about $1.18 plus butter, milk and eggs cost of 41c for the same average family, or $1.59 cents per day. In comparison with this we have an average annual per capita consumption of corn mill products of about 81 lbs. or 405 lbs. per year for the average family of five. At six cents per pound the per day family consumption of one and one-tenth pounds makes a cost of six and three-quarter cents as compared with $1.59. These figures are so nearly accurate that they need no apologies and they appear ridiculous in the extreme in a country said to be the most enlightened nation on earth. Our returned soldiers say that we are fifty years ahead of Europe, but the fact remains that we consume far less cereals and breads than any other nation.

"A further comparison is interesting. A skilled laborer earning $1.00 per hour must work one hour and thirty-five minutes to pay his animal proteins bill for each day, while at the present ratio of consumption he only has to work a fraction more than four minutes to earn his family's corn breads and foods."

After other addresses which dealt with labor problems and factory methods, Dr. L. H. Bailey reported tentatively on "standards and Definitions for Corn." The discussion which followed this report brought out the fact that there is a difference of opinion between the scientists as well as the corn millers as to the relative keeping properties of degerminated corn meal and corn meal not degerminated. Final draft of the proposed standards for corn was deferred to a later date.

The following officers were elected: W. N. Adams of Arkadelphia, Arkansas, president.

## Apples in the Movies

A film on "Apples and the County Agent" was made one of the prominent features on the program of the Farmers' National Congress, the Farm Women's National Congress, and the Maryland Agricultural Society which have just closed their sessions at Hagerstown, Md. The picture was made by the United States Department of Agriculture in co-operation with the extension service of the Maryland State College of Agriculture and was finished in time for a pre-release showing at the congress.

## Trade Terms Approved

Four large fruit and vegetable trade organizations have approved recommended and one of them has adopted the recently issued "Standard Rules and Definitions of Trade Terms for the Fruit and Vegetable Industry," according to information reaching the Bureau of Markets, United States Department of Agriculture.

In a recent statement endorsing these standard trade terms the bureau stated that they had been adopted by four large fruit and vegetable organizations. Only the American Fruit and Vegetable Shippers' Association has adopted these rules and definitions, although they have been approved and recommended by the National League of Commission Merchants of the United States, the International Apple Shippers' Association, the West Fruit Jobbers' Association of America, as well as by the American Fruit and Vegetable Shippers' Association.

The U. S. Food Administration last year found that the cost of manufacturing and delivering a loaf of bread was 2.85 cents.

Few Gifts of Nature
Have Proved More Useful
to Mankind Than Corn—
King of American Cereals

**CORN STARCH**—edible, laundry, or lump, has grown to be a household necessity.

**CORN OIL**—most wholesome as a salad oil, emphasizing the flavor of the salad. For shortening, frying, and the myriad of uses in the kitchen. **Corn Oil** has made a distinct place in the home.

**CORN SUGAR**—has its place with the ice-cream manufacturer, the physician and the baker.

**CORN SYRUP**—a wholesome, popular priced sweet, gives the home a pure, nutritious food.

**American Manufacturers' Association of Products from Corn**

**208 South La Salle Street**
**CHICAGO, ILLINOIS**

MEMBERS:

American Maize Products Co., 135 William St., New York
Clinton Sugar Refining Co., Clinton, Iowa
Corn Products Refining Co., 17 Battery Place, New York
Douglas Co., Cedar Rapids, Iowa
J. C. Hubinger Bros. Co., Keokuk, Iowa
Huron Milling Company, Harbor Beach, Mich.
Keever Starch Company, Columbus, Ohio
Piel Bros. Starch Co., Indianapolis, Ind.
A. E. Staley Mfg. Company, Decatur, Ill.
Union Starch & Refining Co., Edinburg, Ind.

## Conditions in Farm Homes

THE city woman who gets all out of sorts because her cook and housekeeper have left, and she is compelled to do her own work in her modern home and model kitchen, has a snap compared with the average farm wife. She can step to the telephone and order nearly a whole meal already cooked. She can light the gas or turn on the electricity to warm it up. She can eat it in a dining room made comfortable by furnace heat. · She can—well, she simply has little to do in comparison to the farm wife.

The University of Missouri College of Agriculture, through the home economics workers of the Extension Service, surveyed 645 farm homes in several counties this fall. The homes were not chosen because of unusual conditions prevailing in them. They were selected as typical homes. On these farms, which averaged four miles from town, the usual lines of work were followed. Of the total number of farms visited, 407 were occupied by their owners. The homes averaged five rooms.

Of the 645 homes, only 27 were lighted by gas and 28 by electricity; the rest depended on kerosene lamps. More than 500 were heated by stoves. How would that suit the city housekeeper? Of these homes, 461 had no indoor water supply. In 385 of them the women had to carry the water, which means that in 76 homes, perhaps, father or the children carried the bucket. Only 62 had running water in the house, although 135 had sinks with drain. More facts for the city woman to think about. And here are some figures disgraceful even to the farm: Only 397 farm homes were provided with out-of-door closets, 5 with chemical closets, 14 with indoor closet and septic tank, and the rest of them, 229, had none at all. A bathtub served with running hot and cold water was found in 37 homes. Twenty-one homes were not screened.

These are some of the most important items. Other figures follow: Number of homes having linoleum on the kitchen floor, 374; kitchen cabinet, 335; bread mixer, 34; fireless cooker, 35; canner, 78; wheel tray, 17; dumb waiter to cellar, 13; kerosene stove, 381; screened-in kitchen porch, 253; gasoline iron, 27; electric iron, 13; carpet sweeper, 167; hand vacuum cleaner, 100; power cleaner, 5; sewing machine, 419.

Perhaps the city housewife could worry along without these conveniences. But how would she like to start her day's work at four in the morning. On the farms visited, 85 women started the day at that hour in summer and 56 in winter; 289 began at five in summer and 91 in winter; 148 began at six in summer and 270 in winter; and 20 began at seven in the summer and 138 at that hour in winter. In the summer the day's work on the farm ended at seven p. m. for 73 women at eight for 258, at nine for 207, and at ten for 61. The others are still working. The day ends a little earlier in winter: 274 quit at seven, 150 quit at eight, 91 quit at nine, and 14 quit at ten p. m. The farm wife gets an average of one hour a day recreation, although it is not evident from the survey just when the hour comes. About 130 of the farm wives had no free time during the day for rest or recreation. Maybe this explains why women's clubs flourish in the city and are almost unknown outside of the corporate limits.

In spite of all these disconcerting figures, the farm wife is a happy woman. More than half, or 356 of the farms had automobiles, which afforded them means to get away from home once in awhile to help their neighbors who were busy.

## Milk Sweet 18 Days

WHEN a bottle of cream shipped from Los Angeles to the National Dairy Show at Chicago was opened and tested 18 days after it had left the cow, it was pronounced in perfect condition by those who examined it. Other samples of milk and cream entered in the national milk and cream contest and examined 15 to 18 days after production were also found to be sweet.

Because of the number of bacteria present, ordinary milk will not remain wholesome for such a long time, even if kept cold. The milk and cream which made such long keeping records were produced under very sanitary conditions, and every precaution was taken to keep them clean and to keep the bacteria count low. Furthermore, the milk was cooled to a low temperature immediately after it was drawn, and held there. The success attained in producing milk of such long-keeping qualities and low bacterial count is due in a large measure to the educational value of the local milk and cream contests which have been especially popular in cities of the Pacific Coast States.

## Danger in Raw Pork

At this season there is especial danger of illness following the eating of pork that is raw or only partially cooked. Of course, most Americans do not knowingly consume uncooked pork, although it is eaten not infrequently either as raw ham or in sausages that have been insufficiently cooked. At hog-killing time particularly there are many homemade meat products prepared on the farm, and consequently special care should be taken to make sure that pork, before it is eaten, is sufficiently cooked.

The disease known as trichinosis, which may result from eating raw or imperfectly cooked pork, is caused by microscopic worms known as trichinæ. These parasites in years past have been found to be present in 1 out of 71 hogs, and if the presence of dead trichinæ and trichina-like bodies is included in the count, an average of 1 out of every 39 hogs has been found affected. Unlike many other infectious diseases, the severity of the attack of trichinosis depends upon the number of parasites swallowed. Large quantities of slightly infected pork must be eaten in order to produce bad effects; but, on the other hand, severe illness may be caused by eating small amounts of pork that is heavily infected.

## Graded Butter Prices Higher

The United States Department of Agriculture provides a butter-inspection service on the New York, Chicago, Boston, Philadelphia, and Minneapolis markets. This service is not compulsory, but it is valuable to producers or dealers who market butter of superior quality as the "official once over" guarantees the quality of the product and correlates it to its selling price. One day recently a 63-pound tub of butter at one of the markets scored 87 and sold for 50 cents a pound, or a total of $31.50, as compared with another similar weight tub of butter which scored 93 and sold at 63 cents a pound, or for $39.69. The higher-scoring butter commanded a gross price $8.79 higher than that of its lower scoring mate. It pays creamery men to make the best grade of butter possible and then to market it on the scored basis in order to realize its full worth.

**Dehydrated Vegetables**

Parties interested in their
Distribution or Purchase
such as

WHOLESALERS
JOBBERS
EXPORTERS
INSTITUTIONS

and other
Buyers of Large Quantities
are requested to communicate
...with ...

**DRYING SYSTEMS**
INCORPORATED
MANUFACTURERS OF HIGH GRADE
DEHYDRATED FOOD PRODUCTS
CHICAGO, :: :: :: :: :: :: :: :: :: :: :: :: U. S. A.

### Scientists as Detectives

(Continued from page 14)

moths—moths which originated in the exported beans and found their way from the receiving room to the chocolate coating room. Worms were brought to the coating room on the moulded bars of chocolate and the containers which held them. Many of these worms crawled into cracks and crevices of the coating room to spin their enveloping filmy cases and emerge as moths. Strange as it may seem, worms in the moulded cake chocolate used for covering creams, never were the worms found on this chocolate coating of dipped centers. Any worms contained in the moulded chocolate were, of course, utterly destroyed by the steam when the moulds were melted up for chocolate coating. But—and here is the explanation—after dipping the cream centers in this hot melted chocolate, the coated creams remained unprotected in the coating room. Moths in the room deposited their eggs on the chocolate coatings of the confections, and from these eggs the worms developed, to the ruin of the candy stock. No matter how frequently or thoroughly you had cleaned the storage room for finished candy, new worm eggs and worms would have entered with the first lot of dipped chocolates on which moths in the coating room had deposited their eggs.

"Screening of your receiving room for exported bags of beans will prevent moths which develop in the bags from leaving this room and fluttering to other rooms, particularly the chocolate coating room. Metal boxes for the moulded cakes of chocolate, if kept well cleaned, will prevent worm breeding. Lowering of the temperature in the moulded chocolate storage room will restrain the activities and development of any worms which find their way therein. Cleanliness, vigorous and persistent, is a check against breeding places, not only for moths but for other insect life and vermin. Do these things and your losses from ruined stock will cease."

And it did.

---

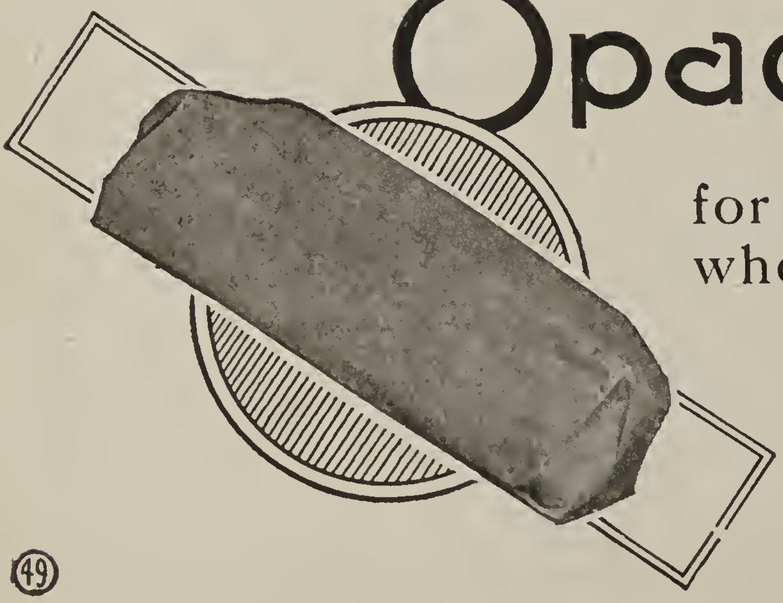
## Soft Drinks Falsely Labeled

Prohibition has been followed by a flood of soft drinks of every conceivable type and variety, many of which are falsely labeled, the Government contends. Literally, hundreds of new beverages have been rushed to the soda fountains and "ade" stands by makers who have not informed themselves of the provisions of the food and drugs act directly concerning their industry. The Bureau of Chemistry of the United States Department of Agriculture, which enforces this act finds that a principal source of difficulty for numerous makers of soft drinks is their disregard of an opinion issued by the bureau several years ago, that "such terms as ade, punch, crush, and smash, when used in conjunction with the name of a fruit, can be applied correctly only to beverages, either still or carbonated, which contain the fruit or juices of the fruit named. Such terms should not be applied to products flavored only with essential oils or essences."

Labels which the bureau declares to be false have been resorted to by many soft-drink manufacturers in an effort to explain the cloudy appearance of their products. With the use of extracts made with alcohol rendered unlawful or inadvisable, soft-drink manufacturers have resorted to extracts which are in the form of emulsions. Speaking generally, these are just as good as the alcoholic extracts, but when used in drinks give the latter a cloudy appearance. This characteristic of many of the new beverages has led manufacturers to attempt an explanation by employing wordings and illustrations in their labels which specifically state or imply that the beverage contains fruit juice or fruit pulp, whereas their product is really flavored only with essential oils or essences.

"Purity" Margarine is churned by The Capital City Products Co. of Columbus, Ohio—High Grade Margarine Makers Since 1884. The Capital City Products Co. also makes NUT Margarine.

**The Pure Spread for daily Bread**



Opaque Sealer

NOT TRANSPARENT

for those desiring a strong background wherewith to vividly portray the color of the printing.

THE WATERPROOF PAPER & BOARD CO.
BREDWRAP
DESIGNERS AND MANUFACTURERS
CINCINNATI, OHIO

(49)

CANNED
SALMON

ALL GRADES
ALL SIZES

*Largest Distributors in the World*

**KELLEY-CLARKE CO.**
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Chicago's Most Modern
Fireproof Hotel

Over 1000 rooms. Each room has a bath and running ice water, is completely and luxuriously furnished. Every floor has its own housekeeper—every known facility for your personal comfort.

*Nothing less than your entire satisfaction will satisfy us.*

The Home of the Famous
TERRACE GARDEN
Chicago's Most Beautiful Restaurant
Noted for its perfect cuisine
Entertainment unexcelled
America's Show Place

Morrison Hotel
Madison at Clark St.
*Personal Management*
HARRY C. MOIR

"Labor," says Carlyle, "rids us of three ills—tediousness, vice and poverty."

It is much more fun to watch your money grow than to watch it go. Buy War Savings Stamps.

## Foreigners Eat More Dairy Products

Although Uncle Sam is the champion dairyman of the world, he is only mediocre as a consumer of butter and cheese. The records of the per capita consumption of dairy products which are available are not directly comparable, because the figures from many of the foreign lands are so old that they are almost moss-covered. However, here they are for what they are worth, as collected by the U. S. Department of Agriculture.

According to the latest figures now available, Denmark leads in cheese eating, the average Dane making away with 12.3 pounds of cheese per year; while Johnny Bull is second, having stomached 11.2 pounds. The average Frenchman is credited with eating 8.1 pounds of cheese, while each Dutchman in the Netherlands consumed about 8 pounds of cheese. The average cheese consumption in Norway was 7.1 pounds; in Switzerland, 5.3 pounds; Italy, 4.8 pounds; Australia, 4.8 pounds; United States 3.8 pounds; Canada, 3 pounds; New Zealand, 3 pounds; and Argentina, 2.9 pounds.

Australia led the world in butter consumption, with 25.6 pounds per person, in 1913. New Zealand, with 21.7 pounds per inhabitant, in 1914, ranked second. Other per capita butter consumption records, for years ranging from 1906 to 1914, are: Denmark, 19 pounds; United Kingdom, 19 pounds; United States, 17.5 pounds; Canada, 16.3 pounds; Norway, 14 pounds; Netherlands, 11.3 pounds; Switzerland, 11 pounds; Italy, 2.5 pounds; and Argentina, 1.7 pounds.

The most recent figures show that the average daily consumption of dairy products in the United States per capita runs like this: Condensed milk, 0.49 ounce; skim-milk powder, 0.012 ounce; milk, 16 ounces; cheese, 0.13 ounce; butter, 0.76 ounce; and ice cream, 0.5 ounce.

## U. S. Work Interests Danes

One of the extension workers lent to the French Government by the United States Department of Agriculture for canning demonstration work, spent September in the Scandinavian countries. During his stay he addressed a meeting of the upper and lower houses of the Danish Legislature on the subject of extension work in the United States and how the work is administered. The privilege of speaking before the Danish Legislature is extended to few outsiders. Following this address, the Minister of Agriculture arranged for the American extension worker to give an address on home demonstration work before a large audience of representative people.

## U. S. Milk in Mexico

Mexico consumes annually about 50,000 cases of evaporated and condensed milk, one-half of which is sold in the peninsular of Yucatan, reports Commercial Attache Feely. The largest sale of such products in Mexico proper is in the cities along the gulf coast, viz: Tampico, Vera Cruz, Tuxpam and Puerto Mexico; the City of Mexico is a small consumer.

E. PRITCHARD
*Packer and Manufacturer of the Finest*
"EDDYS"
BRAND
Canned Foods, Jellies, Preserves,
Plum Pudding, Sauces, Table Delicacies
*and*
PRIDE OF THE FARM Tomato Catsup
Bridgeton, N. J. and 331 Spring Street, New York

## The Health Habit

Twenty years ago I knew a man called Jiggins who had the health habit.

He used to take a cold plunge every morning. He said it opened his pores. After this he took a hot sponge. He said it closed the pores. He got so that he could open and shut his pores at will.

Jiggins used to stand and breathe at an open window for half an hour before dressing. He said it expanded his lungs. He might of course have had it done in a shoe shop with a boot stretcher, but, after all, it cost him nothing this way. And what is half an hour?

After he had got his vest on Jiggins used to hitch himself up like a dog in harness and do shadow exercises. He did them forward, backward and hindside up.

He could have got a job as a dog anywhere. He spent all his time at this kind of thing. In his spare time at the office he used to lie on his stomach on the floor and see if he could lift himself up with his knuckles. If he could, then he tried some other way until he found one that he couldn't do. Then he would spend the rest of his lunch hour on his stomach, perfectly happy.

In the evenings in his room he used to lift iron bars, cannon balls, heavy dumbells and haul himself up to the ceiling with his teeth.

He liked it.

He spent half the night slinging himself around the room. He said it made his brain clear. When he got his brain perfectly clear, he went to bed and slept. As soon as he woke he began clearing it again.

Jiggins is dead. He was, of course, a pioneer; but the fact that he dumbbelled himself to death at an early age does not prevent a whole generation of young men from following in his path.

They are ridden by the health mania.

They make themselves a nuisance.

They get up at impossible hours. They go out in silly little suits and run marathon heats before breakfast. They chase around barefoot to get the dew on their feet. They hunt for ozone. They bother about pepsin. They won't eat meat because it has too much nitrogin. They won't eat fruit because it hasn't any. They prefer albumen and starch to huckleberry pie and doughnuts. They won't drink water out of a tap. They won't eat sardines out of a tin. They won't use oysters out of a pail. They won't drink milk out of a glass. They are afraid. Yes, sir, afraid. Cowards!

And, after all their fuss, they presently incur some simple, old-fashioned illness, and die like anybody else.—Stephen Leacock in *Dallas News*.

## Buy W. S. S.

Each American citizen has it well within his power to follow the Vice President's advice, no matter what his condition. No matter what he is able to earn, whether small sum or great, the securities of the government, Thrift Stamps, War Savings Stamps, Treasury Savings Certificates, Certificates of Indebtedness and Liberty Bonds give opportunity to save at least a part of his reward of labor.

—BUY W. S. S.—

NUCOA

*Butters Bread*

*Stays Sweet*

PACKED AND SEALED AT THE CHURN

THE NUCOA BUTTER CO.,
CHURNERS

Woolworth Bldg., New York
111 West Washington St., Chicago
1964-68 Bryant St., San Francisco
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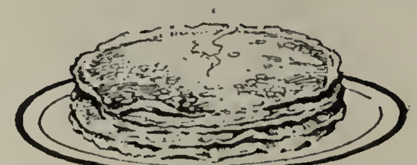
CHURNED FROM NUTS & MILK
TRADE MARK



Pancakes that are perfect every time—light, tender, digestible! That is what you are sure of when you use Aunt Jemima Pancake Flour.

Everything to make good pancakes comes ready mixed in this famous flour—specially ground cereals, leavening, even sweet powdered milk. There is no chance of failure. And the flavor of Aunt Jemima Pancakes has made them the most popular breakfast in America.

Aunt Jemima Buckwheat Flour, too, is well worth knowing. It is ready mixed, like the pancake flour—and gives you the good old-fashioned buckwheat flavor with none of the old-time inconvenience.

*"I'se in town, Honey!"*

Copyright 1920, Aunt Jemima Mills Company, St. Joseph, Missouri

## How Our Milk Is Used

Estimates made by the United States Department of Agriculture show how the 87,905,000,000 pounds of milk produced in the United States annually are utilized. Forty-four and one-half per cent is used as fresh milk for human food purposes, while 36 per cent of the gross supply is converted into butter, and 4.5 per cent is made into cheese; another 4.5 per cent is transformed into canned milk, 4 per cent is used in ice-cream making, 4 per cent is used in feeding calves and hogs on the farms of origin, and 2.5 per cent is lost in shrinkage and other waste of the dairying industry.

During 1914 the United States exported only 700,000,000 pounds of milk in the form of butter and cheese and no condensed milk. The war worked wonders, however, in developing our foreign trade because of the curtailment in domestic supplies of the Allies and importations from prewar sources. During 1919 the United States shipped abroad 620,000,000 pounds of milk in the form of butter, 160,000,000 pounds of milk in the form of cheese, and 1,770,000,000 pounds of milk as condensed milk, a total of 2,550,000,000 pounds of milk as dairy products used for foreign shipment. For comparison's sake these amounts have all been reduced to pounds of milk. Previously such exports were generally expressed in pounds of butter or cheese and cans of condensed milk.

Indicative of the fact that the United States did not supply foreign countries with all the dairy products it produced during the war, the factory production of butter during 1918 amounted to 793,289,301 pounds, while the output of cheese was 352,621,615 pounds, and the condensed milk total amounted to 1,675,477,360, enough of these dairy products being kept in the United States to provide for domestic needs.

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are listed in our Catalog of 99% guaranteed Mailing Lists. It also contains vital suggestions how to advertise and sell profitably by mail. Counts and prices given on 9000 different national Lists, covering all classes; for instance, Farmers, Noodle Mfrs., Hardware Dlrs., Zinc Mines, etc. *This valuable reference book free.* Write for it.

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**ROSS-GOULD Mailing LISTS St. Louis**

**Whiter—Sweeter—Lighter Bread and Cake**

The first essential of success in home baking is to employ a leavener that is pure, thorough and dependable—one that raises evenly, and gives the bread and cake the right texture, and appetizing appearance—and makes them easily digested. The purity, uniform strength and perfect keeping qualities of

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THE WHOLESOME
BAKING POWDER

insures whiter, sweeter and lighter cake and bread—it raises the baking just right, and adds to the nutritive value, as it restores phosphatic elements equivalent to those which fine wheat flour loses in the process of milling.

Every Housewife, Dietitian, Domestic Science Teacher and Lecturer should have a copy of "Rumford Dainties and Household Helps." We will be pleased to send it Free upon request.

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Providence, R. I.

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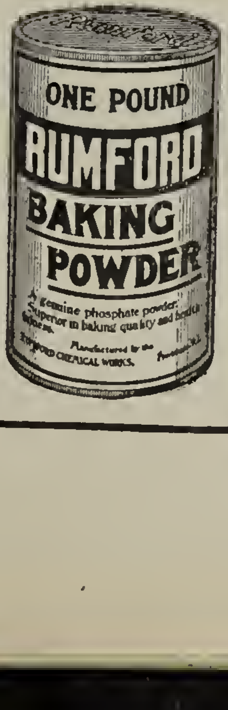

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CHICAGO

## Cocoanut Oil and Copra In the Philippine Islands

There is a great increase in the export of cocoanut oil from the Philippine Islands, in fact, it now holds second place in the list of exports. The oil manufacturing business has increased enormously, and oil mills have been built in all directions. A British Consular reports attributes this increase to the tremendous increase in demand of vegetable oils in consequence of the depletion of the world's supply of animal fats, which has raised the price of these oils: in part, also to the rise in freight rates, on account of which oil could be shipped at a cost of from one-fourth to one-third of the freight cost of copra required to yield that quantity of oil. Copra yields about 60 per cent of its weight in oil, but it is a bulky article to stow. The export of this oil increased from 45,198 tons in 1917 to 115,280 tons in 1918, while the export of copra fell from 92,180 tons in 1917 to 55,061 tons in 1918. In November and December last shipments of copra were brought to England from Singapore for the first time, and in March, 1919, a shipload arrived from Macassar. The local supply of copra has been insufficient to supply the demand of the oil mills. To relieve this shortage an embargo was placed by the Philippine government last August on the export of copra, but this has now been lifted. The exports of (a) copra and (b) cocoanut oil for the last four years are as follows: 1915, (a) 139,092 tons; (b) 13,464 tons. 1916, (a) 72,277 tons; (b) 16,091 tons. 1917, (a) 92,180 tons; (b) 45,198 tons. 1918, (a) 55,061 tons; (b) 115,280 tons. Total, (a) 358,612 tons; (b) 190,034 tons.

Every social problem reaches back into personal work in the home.—Mary Swartz Rose.

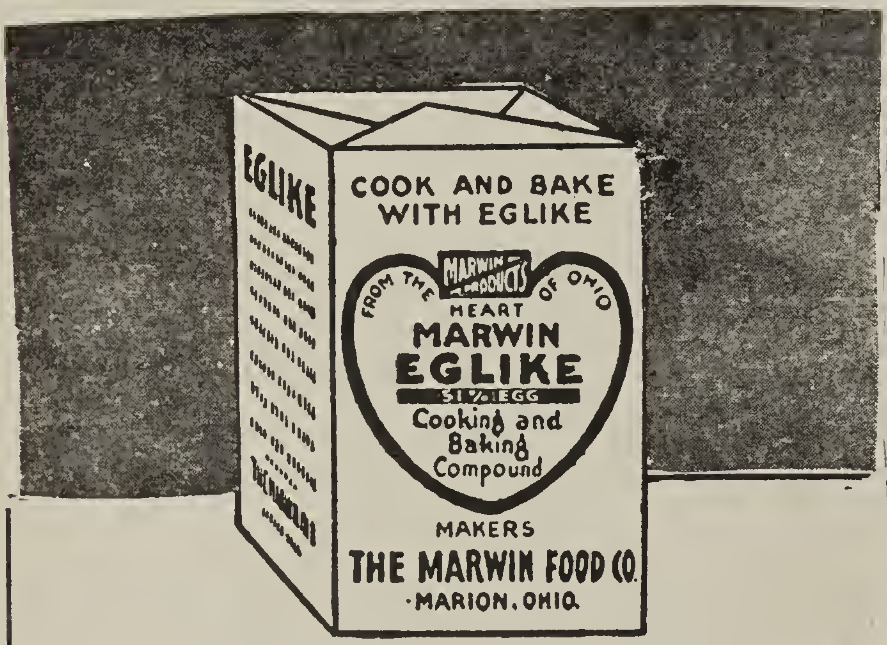
**Butter's Duplicate**

The duty of everyone to consider true economy in food purchases is more important than ever in these days.

In order to secure the most for your money—most in quality and most in food value—buy your Margarine by name—ask for Moxley's.

You don't know how good Margarine is until you have tried Moxley's. Be fair to yourself and try it with your next meal.

Churned by **Wm. J. Moxley,** INCORPORATED Chicago



SALAD DRESSING MEAT LOAF
MUFFINS GRAVIES
PANCAKES PUDDINGS

**Every Day Cooking and Baking**

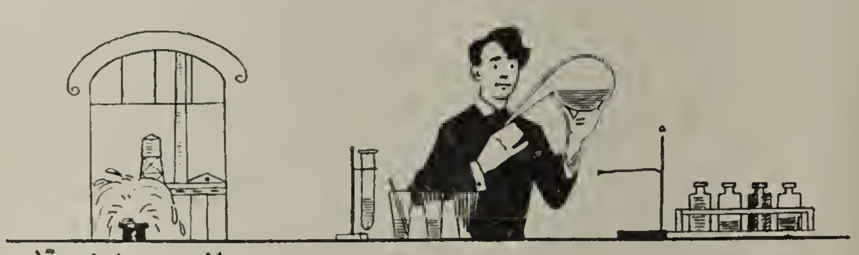
will be relished with enthusiasm if made with

**EGLIKE**

It Is Economical.

Requires no eggs.
Grocers profit always certain. No loss or damage.
Your jobber will sell you.

**THE MARWIN FOOD CO., Marion, Ohio**



No grimy, roily water for them

We gave the artist this quotation, "No grimy, roily water for them," taken from Elbert Hubbard's new book recounting his recent little journey through Parchment. The artist's first conception was that we **drank** the water—but Bert found out that the pure sparkling stuff tests great! And is blown from fourteen wells by a hurricane of compressed air for **paper making purposes.**

Drop us a line for this book today, "A Further Palaver on Paper," and we will send you a copy as soon as we can.

**Kalamazoo Vegetable Parchment Company**
**Kalamazoo, Michigan**

Makers o Waxed Papers and Vegetable Parchment

KVP

## Peanut Butter Great Food Value

The variety of uses for peanut butter is surprising to the uninitiated. This increases its popularity with every housewife. For children's lunches, sandwiches, for picnics and as a substitute for other spreads, peanut butter has no equal. Ten cents' worth is equal to one dozen eggs in food value, and various other comparisons are equally as interesting.

As with all superior products, only the finest materials go into the making of it. Spanish and Virginia shelled peanuts are roasted to a delicate brown, cooled and blanched. Before being ground, they are sorted and put into different grades according to their size, afterwards mixed with just the right amount of salt and suger.

After filling the glasses with the rich brown butter, the sanitary tops are placed on the glass to keep this carefully prepared product free from any contamination.

This product is sold in various size glasses or five pound pails, and is a food we always like to keep on hand for both every day use and emergencies.

### *How It Is Made.*

As with all superior products, it is necessary that the best materials go into the making of it. The splendid Spanish and Virginia peanuts are received shelled. Each shipment of peanuts is carefully inspected before being accepted.

The color of the peanut butter depends upon the roasting, so careful producers roast all the peanuts in their own plant. After being roasted the peanuts are cooled and passed through a machine, where they are blanched and the tiny seed eliminated from the one end of the peanut. This bit of a seed, if left in, gives the finished product a slightly bitter taste. The blanched meats are scattered by the machine on to a moving table on the floor below.

### *Hand Picked.*

Neat girls seated before these moving tables next pick out all imperfect peanuts. The Virginia peanuts run the best, while the Spanish peanuts often require two pickings.

The Spanish variety are rich in oil, while the Virginia nuts are much dryer, being rich in protein. Properly mixed, these make a very good balance. The selected peanuts are put into a mixer, according to formula, and just the right amount of salt and sugar added. The nuts are thoroughly mixed so as to give a uniform product and then forced automatically through the grinder. Another immaculate young woman fills the clean glasses with the rich, brown butter that is forced out of the porcelain lined tube of the grinding machine. Sanitary tops are immediately placed on the glass to keep this carefully prepared product absolutely free from dust or any possible contamination.

The label of the producer of national reputation for high quality and uniformity of product is then put on the glass and it is ready for distribution. When we open a glass of that peanut butter in our own kitchens we know that it is the same as though we stood at that sanitary tube leading from the grinding machine and filled the glass ourselves, using the product immediately.

Peanut butter is a food product which became popular as soon as it was on the market, because of its delicious flavor, healthfulness and high food value. It compares favorably with beef steak in body-building material.

THERE IS
CLEANLINESS, HEALTH
INSURANCE, ECONOMY
AND CONVENIENCE IN

Our **PET**
BRAND
**Evaporated
Milk**

*The Standard of the World*

Wins and Holds Trade on
account of its Superior Quality

PREPARED BY
**Helvetia Milk Condensing Co.**
HIGHLAND, ILLINOIS
ORIGINATORS OF EVAPORATED MILK

**ACID**
Calcium Phosphate
Ammonium Phosphate
Phosphoric
Oxalic

Baking Powder Materials

Epsom Salts, U. S. P.

**Victor Chemical Works**
New York CHICAGO St. Louis
*LARGEST MANUFACTURERS*

## Ohio Bans Ripe California Olives

As a result of seven deaths at Canton, Ohio, recently and five fatalities at Detroit from eating ripe olives, the State Dairy and Food Department of the State Department of Health warned citizens against eating ripe olives and warned dealers against selling them until further notice. Local health officers are requested to forbid their sale.

---

Of two English cottage-tenants for whom Mr. Charles Rothschild has provided baths, one thinks it is a "grand place to salt half a pig in"; and the other finds it a "splendid place to keep seed potatoes in."

## Milk Food

Milk is an important source of energy, protein, mineral elements and vitamines, and possesses unique value as a growth-promoting food. It is the one article of diet whose sole function in nature is to serve as food, and the one food for which there is no satisfactory substitute. The milch cow returns for human consumption a much larger proportion of the food value of what she eats than does the animal which is raised for slaughter. It is the best safeguard against any deficiency which might possibly arise through restricted choice of foods.

Every Kind of
**WARD'S**
FAR FAMED
**BREAD and CAKES**
is the finished and perfected result of skill, science, experience, and the use of highest grade materials.

**WARD BAKING COMPANY**
New York Boston Providence Cleveland
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**TIN and FIBRE CONTAINERS**
*for*
Foods—Drugs—Oils
Infinite Variety
Large Capacities
Prompt Deliveries

**American Can Company**
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*Look for Price's Tropikid on the label.*

**PRICE'S VANILLA**
Price's is the pure juice of the finest vanilla beans—aged in wood to give it a rich, mellow flavor. No substitute flavor nor artificial coloring in it!
PRICE FLAVORING EXTRACT COMPANY
Chicago *In Business 66 years* U. S. A.

***"TRY THIS SYRUP, SIR—it's made with* MAPLEINE"**

Waiters in the best hotels may well say this with pride—they know patrons are highly pleased when Mapleine Syrup is served with hot cakes.

Mapleine contains no maple sugar, syrup nor sap, but produces a taste similar to maple.

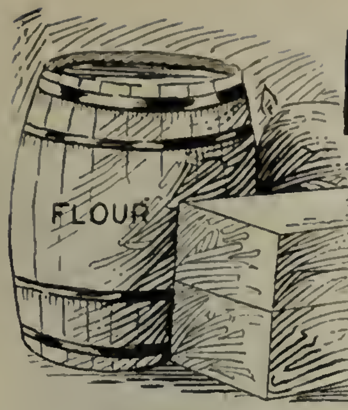
Instant Mapleine Syrup is made by dissolving sugar in hot water and flavoring with Mapleine—the economical way to make delicious syrup.

Mapleine also flavors desserts, icings, fillings, pudding sauces, ice cream, candies.

*Order from your dealer*

**Crescent Mfg. Co.**
Seattle, Wash.

(M-510)



# IMPORTANT ORGANIZATIONS *in the* FOOD INDUSTRY

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W. A. SCHMITT, *Secretary*, C. F. Mueller Co., Jersey City, N. J.

**American Association of Creamery Butter Manufacturers**
PROF. GEORGE L. MCKAY, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Association of Refrigeration**
J. F. NICKERSON, *Secretary*, 431 South Dearborn St., Chicago, Ill.

**American Bottlers' Protective Association**
WILLIAM T. PHILLIPS, *Secretary*, 218 East Thirty-seventh St., New York, N. Y.

**American Chain of Warehouses**
New York City.

**American Chemical Society**
CHARLES L. PARSONS, *Secretary*, Box 505, Washington, D. C.

**American Corn Millers' Federation**
DOUGLAS LACKEY, *Secretary*, Postal Telegraph Bldg., Chicago, Ill.

**American Cranberry Growers' Association**
H. B. SCAMMELL, *Secretary*, Toms River, N. J.

**American Fair Trade League (Price Maintenance)**
EDMOND A. WHITTIER, *Secretary*, Fifth Avenue Bldg., New York, N. Y.

**American Feed Manufacturers' Association**
L. F. BROWN, *Secretary*, Milwaukee, Wis.

**American Fruit and Vegetable Shippers' Association**
R. L. EVANS, *Secretary*, 139 North Clark St., Chicago, Ill.

**American Grocery's Society (Anti-Chain Store)**
LLOYD CURTISS, *Secretary*, Newark, N. J.

**American Home Economics Association**
MISS CORA WINCHELL, *Secretary*, 1211 Cathedral St., Baltimore, Md.

**American Institute of Weights and Measures (Anti-Metric)**
30 Vesey St., New York, N. Y.

**American Manufacturers' Association of Products from Corn**
L. HOHMEYER, *Secretary*, 208 South La Salle St., Chicago, Ill.

**American Meat Packers' Association**
ROBERT G. GOULD, *Secretary*, 116 Nassau St., New York, N. Y.

**American Metric Association**
HOWARD RICHARDS, JR., *Secretary*, 156 Fifth Ave., New York, N. Y.

**American National Live Stock Association**
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# Eastern Soy Sauce Mystery Penetrated

THERE are mysteries of the far and ancient East that, now and then through the centuries, may be penetrated by the occidental mind. Some of them have been—and one of them is soy sauce. That substance they say, has gone into all the meat sauces—all the good ones, at least—that the Western world has consumed through all the years. But it has been made only in the Far East—in Japan and China. Now, it has been made in the United States—by the Government of the United States, through its fermentation experts in the Bureau of Chemistry of the Department of Agriculture.

The work has been going on only about a year, and it is said to take five years to make some qualities of soy sauce, but the specialists have turned out a sauce that has the beautiful golden-brown color of the oriental output and that has a flavor much finer than the specialists themselves hoped for at the outset. The work will continue through other years, but, in the meantime, negotiations are pending with manufacturers who will probably produce it on a commercial scale in the United States. The work was begun with the aid of a professor in the University of Tokio, and has been carried forward by workers in the Bureau of Chemistry who worked with him.

The first step is to make a mixture of soy beans, boiled until they are fairly soft, and wheat, roasted until it is a little more than brown, and then crushed. To this there is added a small quantity of a mold known as the yellow-green aspergillus. The mixture is allowed to ferment, under definite conditions of temperature and humidity, for at least two and a half days. Then it is put into a brine strong enough so that the ultimate product will contain from 16 to 18 per cent of salt. There it remains for from six weeks to five years, according to the quality of sauce desired. It is stirred every day, in order to give a measure of aeration. Finally, the finished sauce is pressed out.

The Japanese use this sauce in cooking meats, soups, rice and other dishes. Its principal use in occidental countries has been for mixing with the other ingredients of meat sauces. Its manufacture in the United States will afford an additional means of utilizing the soy bean, which recently has taken its place as one of the important leguminous crops of this country.

---

POULTRY shippers may avoid heavy losses from spoilage by proper methods of preparing and shipping their birds to market, say the specialists of the Bureau of Chemistry, United States Department of Agriculture, who have developed methods for bleeding, killing, chilling, storing and packing poultry. While it is important at all times to observe proper precautions for preparing poultry for the market, it is of special importance to do so for the holiday markets, because of the possibility of a combination of warm weather and a glut in the market causing heavy losses. If correct methods are followed, poultry can be carried for some time, even under adverse weather and market conditions, with little loss from spoilage. Improperly packed poultry, however, under such adverse conditions is likely to be a total loss.

The specialists recommend the following methods for handling dressed poultry:

1. Never handle birds roughly, either before or after killing, since such treatment causes bruises, broken bones, scarred skins and soft places in the flesh.

2. Food in the crop or in the intestines of dressed birds causes loss of flavor and hastens decay which more than offsets any gain from extra weight. For this reason a chicken or turkey should not be killed when the crop is full of feed. Give the bird only water for twenty-four hours before it is killed.

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Sauer's is the largest selling brand in the U. S., because of the quality, and is the "One Best Bet" for the wide-awake retailer.

It is this QUALITY that has won for us at Seventeen Great American and European Expositions, Seventeen Highest Awards for Purity, Strength and Fine Flavor.

We take this opportunity to thank our friends and customers for their confidence, and to express the hope that we may continue to have their patronage and to promise that the quality of Sauer's Extracts will always be the highest it is possible to produce.

THE C. F. SAUER COMPANY,

C. F. Sauer

President.

WE OWN AND OPERATE TWO GLASS FACTORIES, WHICH FACILITATE THE HANDLING OF OUR BOTTLES

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